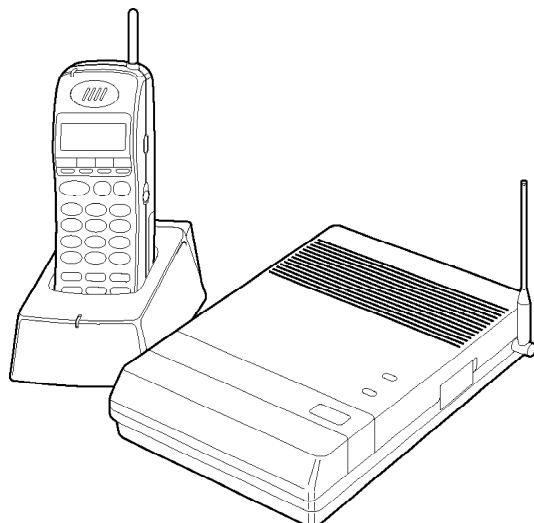


ORDER NO. KMS0103561C1  
F5

# Service Manual

WIRELESS PHONE

KX-T7885W  
(for U.S.A.)



## SPECIFICATIONS

### ■ SPECIFICATIONS

	Base Unit (KX-T7885WH)	Handset (KX-T7885WR)
Power Source:	AC Adaptor (KX-A11-5)	Rechargeable Ni-Cd battery
Receiving Frequency:	60 channels within 926.1~927.60 MHz	60 channels within 902.1~903.60 MHz
Receiving Method:	Double super heterodyne	Double super heterodyne
Transmitting Frequency:	60 channels within 902.1~903.60 MHz	60 channels within 926.1~927.60 MHz
Oscillation Method:	PLL synthesizer	PLL synthesizer
Detecting Method:	Quadrature Discriminator	Quadrature Discriminator
Tolerance of OSC Frequency:	±3.6kHz	±3.6kHz
Modulation Method:	F3 (frequency modulation)	F3 (frequency modulation)
ID Code:	20-bit written in ROM	20-bit written in ROM
Dial Mode:		Tone (DTMF)/Pulse
Redial:		Up to 30 digits (SLT MODE)
Power Consumption:		50 hrs at Standby, 4 hrs at Talk
Dimension (H x W x D):	1 <sup>11</sup> / <sub>16</sub> " x 4 <sup>23</sup> / <sub>32</sub> " x 6 <sup>11</sup> / <sub>16</sub> " (44 x 120 x 172 mm)	7 <sup>19</sup> / <sub>32</sub> " x 2 <sup>1</sup> / <sub>32</sub> " x 1 <sup>9</sup> / <sub>32</sub> " (193 x 52 x 30 mm)
Weight	10.94 oz. (310 g)	7.95 oz. (225 g) with battery

Design and specifications are subject to change without notice.

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**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**Panasonic**

## **1. CAUTION**

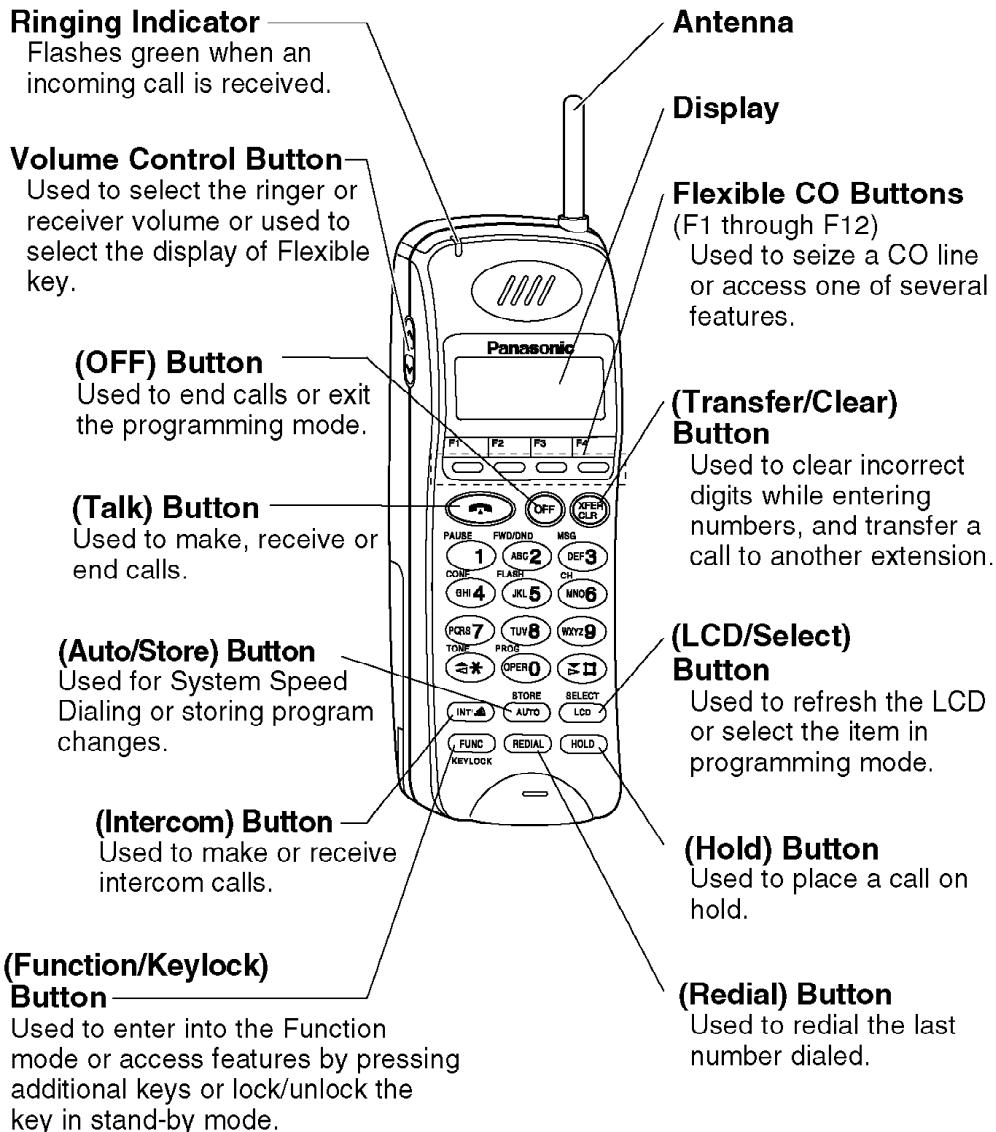
**Note:**

**When you mention the serial number, write down all 11 digits.**

**The serial number may be found the label affixed to the bottom of the unit.**

## **2. OPERATING INSTRUCTIONS**

## KX-T7885WR (Handset)



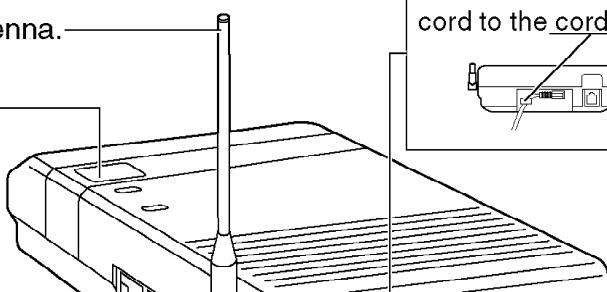
## KX-T7885WH (Base Unit)

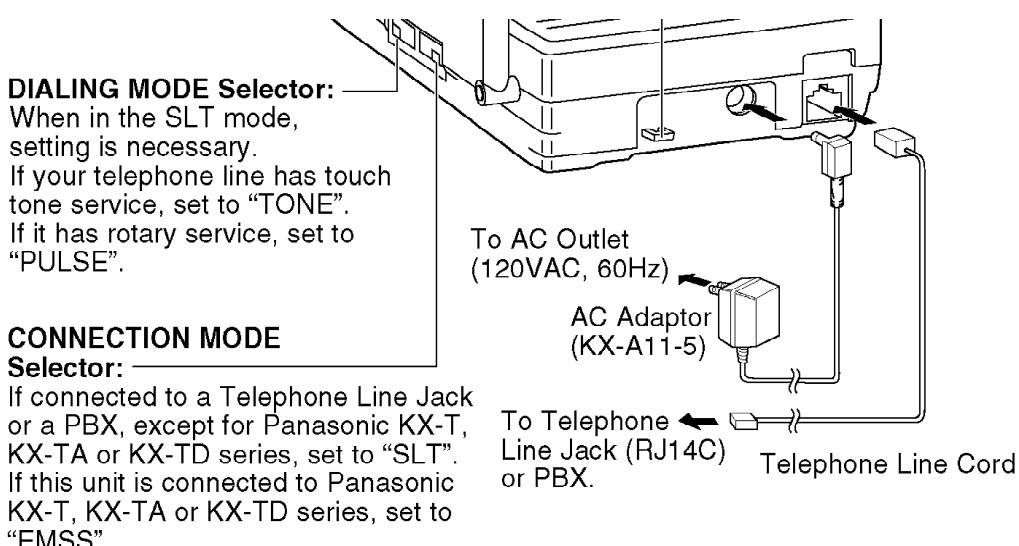
**1** Connect as shown.

**2** Raise the antenna.

**Locator key**  
Used to search the handset.

Fasten the AC adaptor cord to the cord holder.





### 3. DISASSEMBLY INSTRUCTIONS

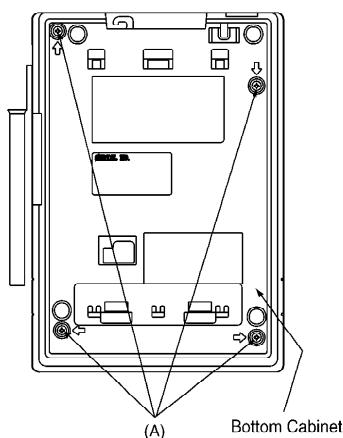
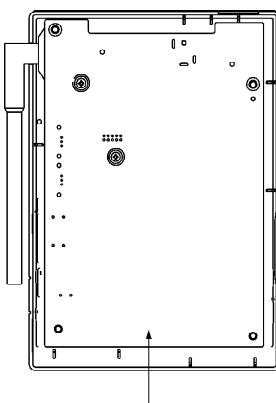


Fig.A



Remove the Main Board (PCB1)

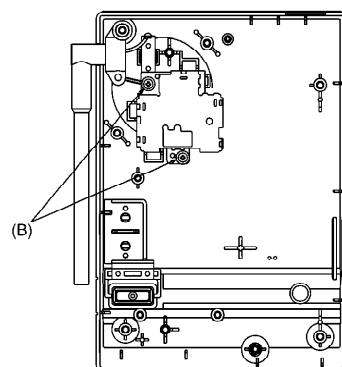


Fig.C

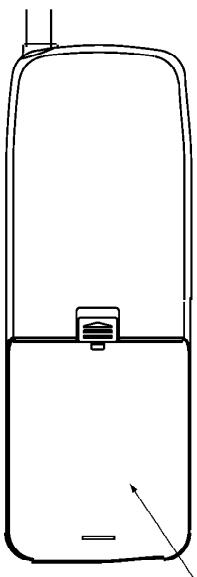


Fig.D

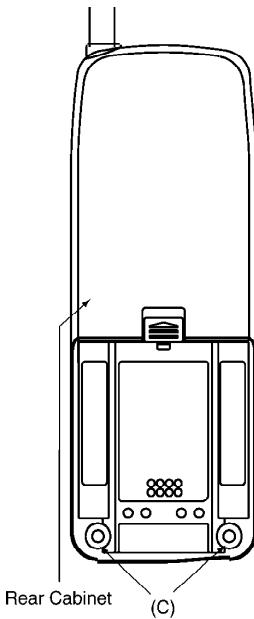


Fig.E

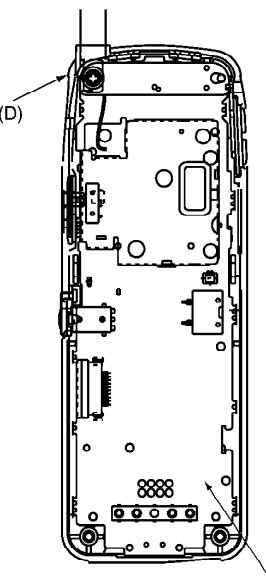


Fig.F

Ref No.	Procedure	Shown in Fig. -	To remove	Remove
1	1	A	Bottom Cabinet	Screws (3 x 12) ..... (A) x 4
2	1. 2	B	Main board (PCB1)	Remove the Main Board (PCB1)
3	1~3	C	RF UNIT (PCB2)	Screws (3 x 10) ..... (B) x 2
4	4	D	Battery	Remove the Battery
5	4. 5	E	Rear Cabinet	Screws (2.6 x 10) ..... (C) x 2
6	4~6	F	Antenna	Screws (2.6 x 10) ..... (D) x 1
7	4~7	F	Main board (PCB3)	Remove the Main Board (PCB3)

## 4. ADJUSTMENTS (KX-T7885WH)

**Note:**

After servicing the RF unit, never make adjustments without assembling the upper RF unit cover and the lower RF unit cover with solder.

### 4.1. Equipment

1. Radio Tester : Model 2295A or later.
2. 4.5 digit Digital Multi meter : B&K Model 2833 or compatible.
3. Oscilloscope, single or dual channel : Panasonic VP-5512P100 or compatible.
4. Telephone Analyzer : B&K Model 1050 or compatible.
5. DC Power Supply, capable of supply 3.9V DC at 300mA.  
NOTE : only needed if Telephone Analyzer does not have DC VOLTS output available.
6. Corded Telephone. (Single Line Telephone)

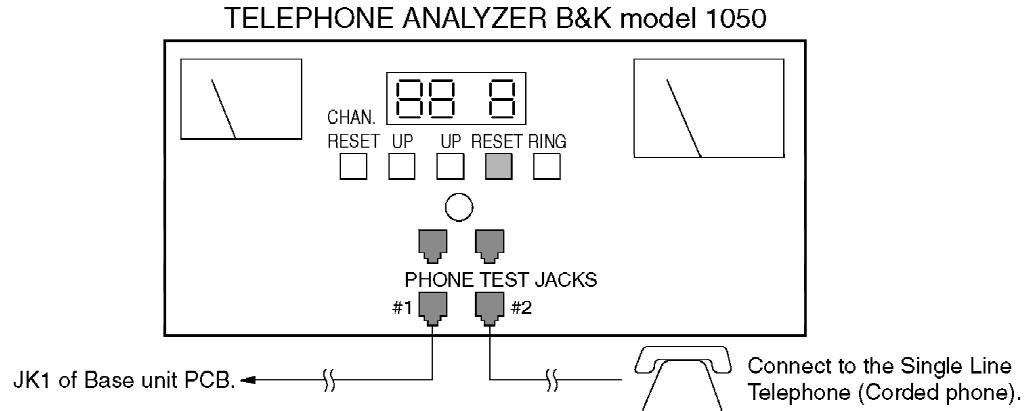
- 7. Radio Frequency Cable : BNC end to open end.**
- 8. Audio Cable : BNC end to alligator clip end.**
- 9. High Frequency Adjustment Tool:**
- 10. Isolation Capacitors, quantity of 2, 10  $\mu$  F maximum, 50V DC or greater.**
- 11. Soldering Iron, solder, and various tools.**
- 12. AC voltmeter; Available Read out range is -30dBm to 0dBm.**

#### **4.2. Adjustment Preparation**

Please prepare the BASE UNIT before performing any adjustment procedures. Refer to the BASE UNIT REFERENCE DRAWING for connection and test point locations.

- 1. Unscrew all 4 screws from bottom of cabinet. Remove cabinet bottom.**
- 2. Remove the 2 screws which tightened RF unit to upper cabinet.**
- 3. Remove main P.C.Board from cabinet top and place beside cabinet.**
- 4. Solder a test mode Jumper (JE) by solder as shown on the BASE UNIT REFERENCE DRAWING.**
- 5. Solder one isolation capacitor's positive lead to the main P.C.Board TIP point and the other isolation capacitor's positive lead to the main P.C.Board RING point.**
- 6. Connect the Audio Cable, positive lead to the TIP isolation capacitor's free lead, the negative lead to the RING isolation capacitor's free lead. Do not connect the BNC end of the cable.**
- 7. Connect the Telephone Analyzer PHONE TEST JACK #1 to the BASE UNIT P.C.Board phone jack.**
- 8. Connect the corded telephone to the Telephone Analyzer PHONE TEST JACK #2.**
- 9. Solder Radio Frequency Cable open end to TPA and TP-GND as specified in BASE UNIT REFERENCE DRAWING.**
- 10. Take up and off hook the corded phone connected to Telephone Analyzer using PHONE TEST JACK #2.**
- 11. Push "RESET" button of TELEPHONE ANALYZER.**

- 12. Connect oscilloscope to 20dB Electric field detection port.**
- 13. Connect AC adapter to Base unit PCB.**



### 4.3. Adjustment Procedure

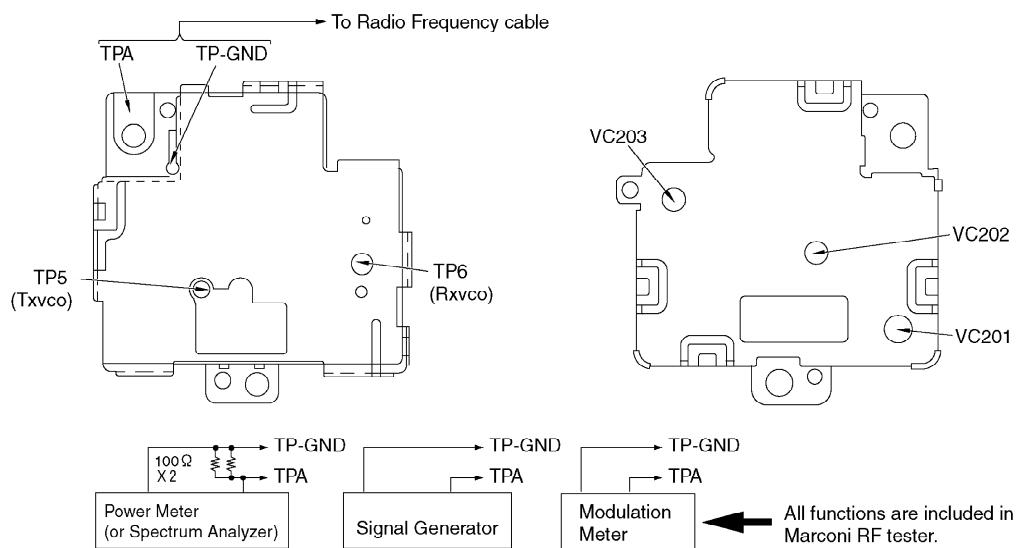
If your unit have below symptom, adjust for each item as table of adjustment below.

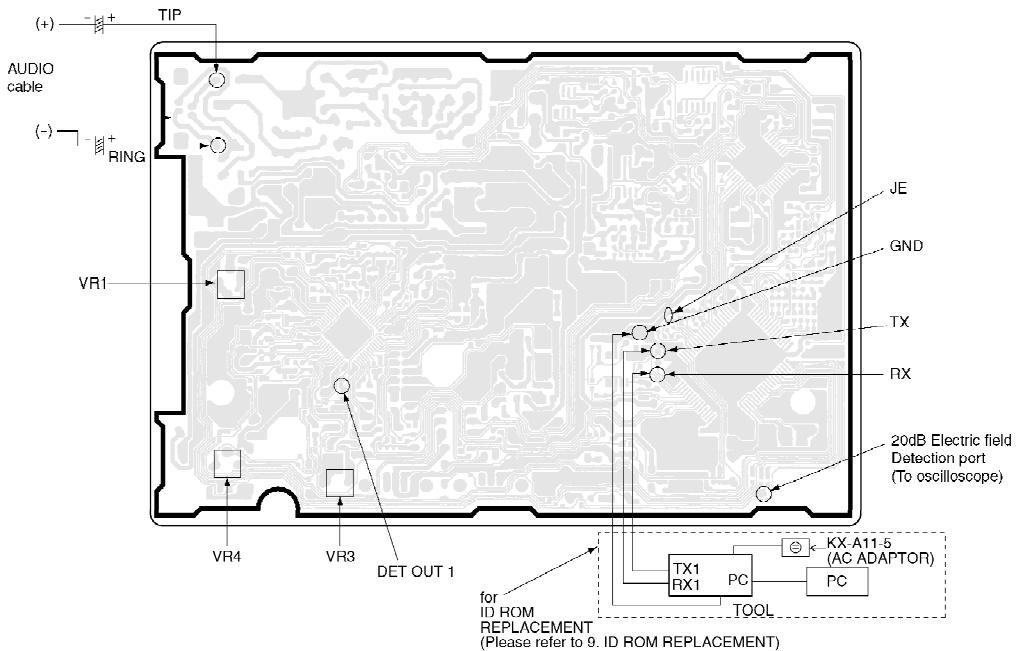
Symptom	Remedy
Does not link between base unit and portable handset.	Adjust the adjustment items (A), (B), (D), (E),(F) and (G).
The sound quality is wrong.	Adjust the adjustment item (J).
Transmission sound for receiver is unstable.	Adjust the adjustment item (K).

Item	Adjustment Item	Procedure
(A)	RX VCO Voltage Adjustment	Adjust RX VCO voltage 1.6V by VC203.
(B)	TX VCO Voltage Adjustment	Adjust TX VCO voltage 1.6V by VC202.
(C)	Starting for RX mode	Connect TIP & RING to MARCONI AF in by Audio cable. MARCONI settings are RX mode, RF frequency = 926.125MHz, RF power = minimum, MOD frequency = 1kHz, MOD level = 3kHz. Check the monitor tone (1kHz) from MARCONI. If you can hear tone or distortion is under 50%, check soldering of RF unit and RF cable. After confirm the Line out distortion is over 50%, Set up the MARCONI's RF power = 60dB $\mu$ V (=1mV).
(D)	DETOUT1 Temporary Adjustment	Adjust DETOUT1 to -17dBm (-19dBV) by VR1 temporarily.
(E)	LINE OUT Level Temporary Adjustment	Connect TIP & RING to MARCONI AF in. Adjust LINE OUT lever to -10.5dBm (-12.5dBV) by VR3 temporarily.

(F)	<b>Matching Between 30% Distortion Sensitivity and 20dB Electric Field Detection</b>	Decrease MARCONI RF power when LINE OUT distortion is 30% (reading MARCONI). Be careful not to put your hand close to MARCONI. Adjust VR1 so that 20dB electric field detection becomes High/Low is the same time range. Be careful not to put your hand close to MARCONI.
(G)	<b>LINE OUT Level Adjustment</b>	Adjust LINE OUT level to -10.5dBm (-12.5dBV) by VR3.
(H)	<b>30% Distortion Sensitivity Confirmation</b>	Decrease MARCONI RF power when LINE OUT distortion is 30% (reading MARCONI). RF power should be less than 1dB $\mu$ V (=1.12 $\mu$ V). Be careful not to put your hand close to MARCONI.
(I)	<b>Starting for TX mode</b>	Connect (3) and RF unit. Connect TIP & RING to MARCONI AF out by Audio cable. MARCONI settings are TX mode, AF OUT frequency = 1kHz, AF out level = -30dBm (-32dBV) at 600 $\Omega$ load. For RX mute, make dummy handset set test mode and choose ch 1. Dummy handset should be made its mic shorted.
(J)	<b>TX Frequency Adjustment</b>	Adjust TX frequency to 902.125MHz $\pm$ 0.0003MHz by VC201.
(K)	<b>TX Modulation Adjustment</b>	Adjust TX modulation to 2.6kHz.
(L)	<b>TX Power Confirmation</b>	Confirm TX power. It should be between 0.25mW and 0.63mW.

#### 4.4. Base unit reference drawing





## 5. ADJUSTMENTS (KX-T7885WR)

**Note:**

After servicing the RF unit, never make adjustments without assembling the upper RF unit cover and the lower RF unit cover with solder.

### 5.1. Equipment

1. Radio tester : Model 2295A or later.
2. 4.5 digit Digital Multi meter : B&K Model 2833 or compatible.
3. Oscilloscope, single or dual channel : Panasonic VP-5512P100 or compatible.
4. DC Power Supply, capable of supply 3.9V DC at 300mA.
5. Radio Frequency Cable : BNC end to open end.
6. Audio Cable : BNC end to alligator clip end.
7. High Frequency Adjustment Tool :
8. Isolation Capacitors, quantity of 2, 10  $\mu$  F maximum, 50V DC or greater.
9. Soldering Iron, solder, and various tools.
10. AC voltmeter : Available Read out range is -30dBm to 0dBm.

### 5.2. Adjustment Preparations

Refer to Handset Reference Drawing for connection and test point locations.

- 1. Unscrew all 2 screws from back-side cabinet.**
- 2. Remove the back-side cabinet from front-side cabinet.**
- 3. Loosen the screw which tightens the ANTENNA P.C.B. and ANTENNA with front-side cabinet.**
- 4. Remove the ANTENNA.**
- 5. Remove the lead wire of ANTENNA P.C.B. from RF unit by using solder iron.**
- 6. Connect DC power supply (3.9V) to main Board (test point + and -) and connect RF unit to main board by the extension cord.**
- 7. Connect a distortion meter (with AC voltmeter) to the SPK terminals (TP3) on the handset.**
- 8. You can choose two methods as follows, in case of operation of test mode entering.**

Method A.

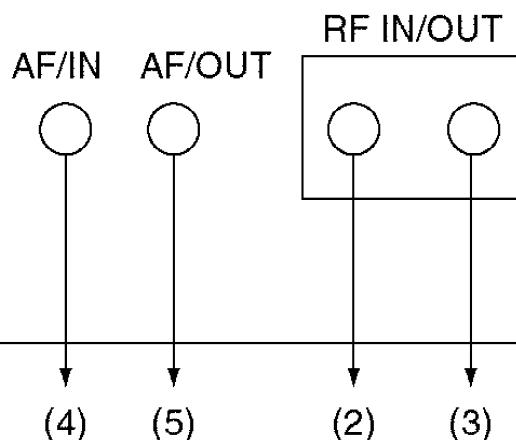
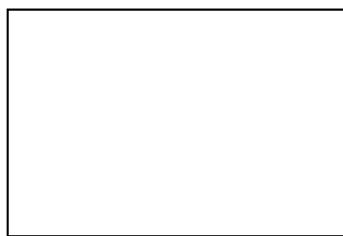
Connect the test point T1 and T2 for 1 second and Release.

Method B.

(Step1).Turn on the power switch while pushing "\*" , "#" keys simultaneously

(Step2).Push (F3) key, (1), (0) sequentially. (Channel No.10 Assigned)

MARCONI



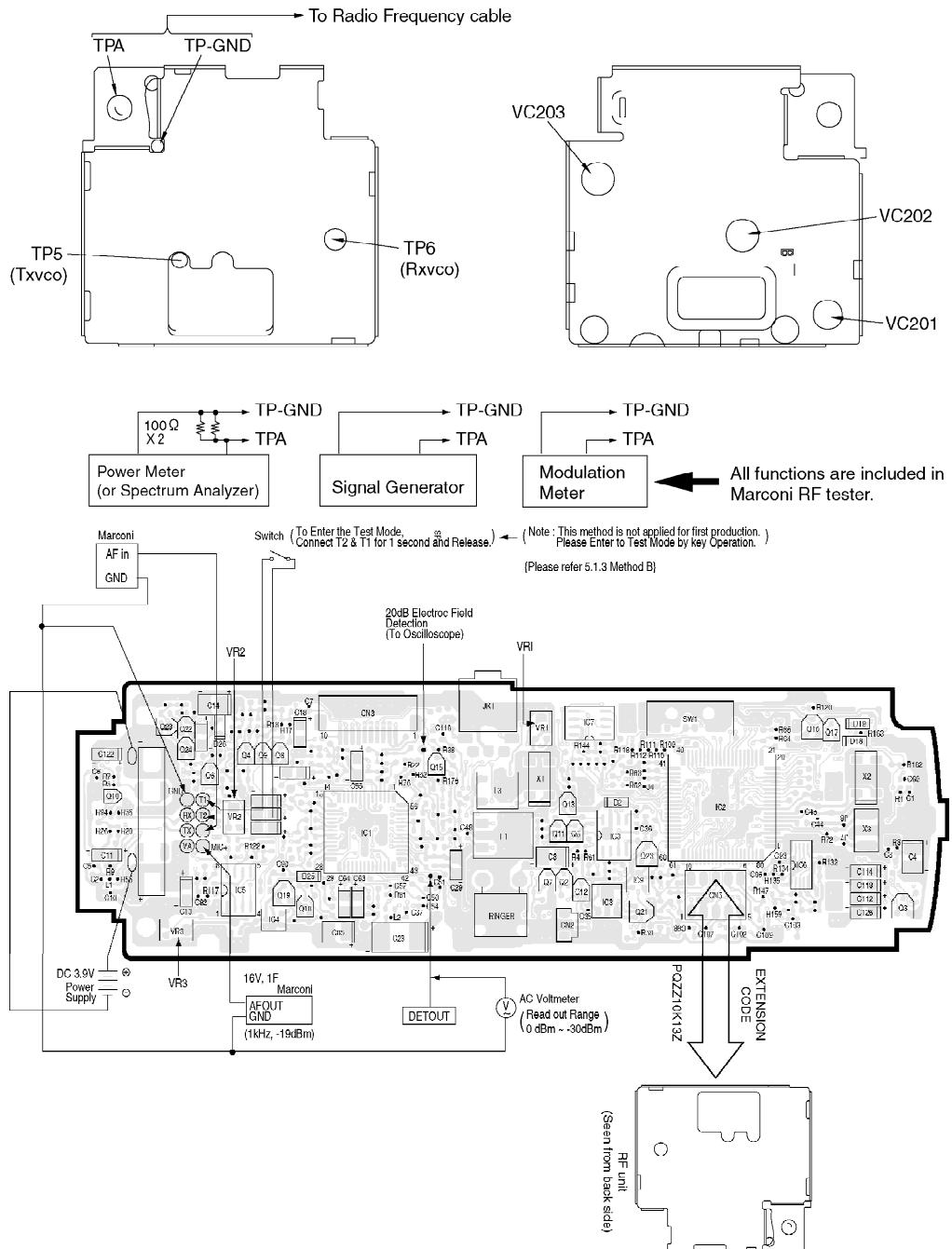
### 5.3. Adjustment Procedure

If your unit have below symptom, adjust for each item as table of adjustment below.

Symptom	Remedy
Does not link between base unit and portable handset.	Adjust the adjustment items (A), (B), (D), (E), (F) and (G).
Speaker level of portable handset is unstable.	Adjust the adjustment item (E).
Transmission sound for receiver is unstable.	Adjust the adjustment item (I).

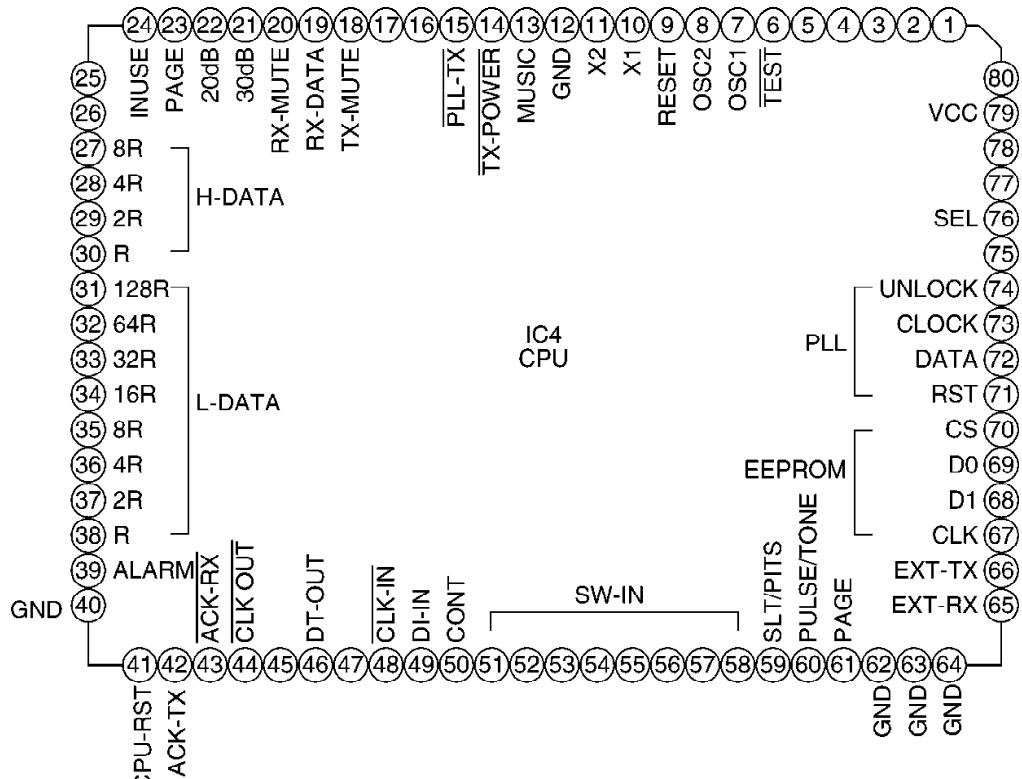
Item	Adjustment Item	Procedure
(A)	RX VCO Voltage Adjustment	Adjust RX VCO voltage to 1.5V by VC203.
(B)	TX VCO Voltage Adjustment	Adjust TX VCO voltage to 1.5V by VC202.
(C)	Starting for RX mode	MARCONI is set, RX mode, RF frequency = 902.350MHz, RF power = 60 dB $\mu$ V (=1mV), MOD frequency = 1kHz, MOD level = 3kHz.
(D)	DETOUT Adjustment	Adjust DETOUT to -15.5dBm (-17.5dBV) by VR1.
(E)	SP OUT level Adjustment	Connect AC voltmeter to TPSP +. Adjust SP OUT level to -21dBm (-23.0dBV) by VR2.
(F)	30% Distortion Sensitivity Confirmation	Decrease MARCONI RF power when SP OUT distortion is 30% (reading MARCONI). RF power should be between -12.0dB $\mu$ V (=0.25 $\mu$ V) and -6.0dB $\mu$ V (=0.50 $\mu$ V). Be careful not to put your hand close to MARCONI.
(G)	20dB Electric Field Detection Confirmation	Increase MARCONI RF power when 20dB electric field detection becomes High/Low is the same time range. RF Power should be between -2dB $\mu$ V (=0.80 $\mu$ V) and -8dB $\mu$ V (=0.40 $\mu$ V)
(H)	Starting for TX mode	Connect (3) and RF unit/ Connect (5) and MIC+, and remove (4) and SP+. MARCONI is set, TX mode, AF OUT frequency = 1kHz, AF OUT level = -19dBm (direct reading on the CRT of MARCONI is 87.0mV).
(I)	TX Modulation Adjustment	Adjust TX modulation to 5.4kHz by VR3.
(J)	TX Frequency Adjustment	Adjust TX frequency to 926.350MHz $\pm$ 0.0005MHz by VC201.
(K)	TX Power Confirmation	Confirm TX power. It should be between 0.25mW and 0.50mW.

#### 5.4. Handset Reference Drawing



## 6. IC DATA (KX-T7885WH)

### 6.1. IC4 (CPU)



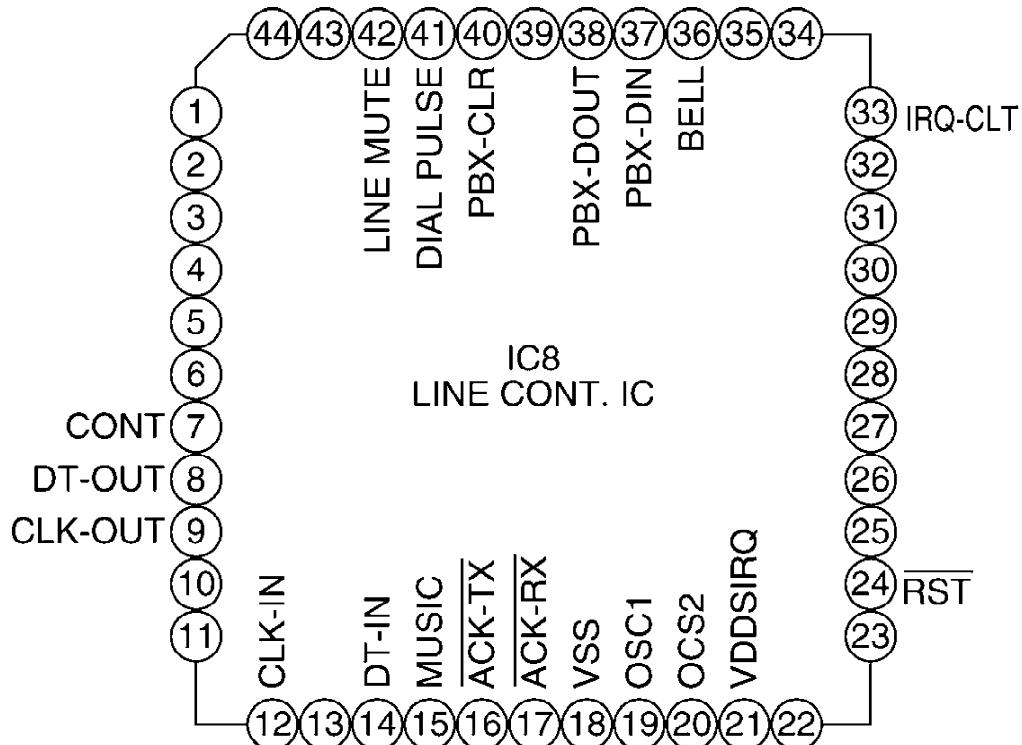
### - CPU Terminal assignment

Pin	Description	I/O	High	High-Z	Low	Pin	Description	I/O	High	High-Z	Low
1	GND					41	CPU-RST	OUT			
2	GND					42	ACK-TX	OUT			
3	GND					43	ACK-RX	IN			
4	GND					44	CLK-OUT	OUT			
5	GND					45	GND				
6	TEST(VCC)	IN	IN	NORMAL		46	DT-OUT	OUT			
7	OSC1	IN	IN			47	GND				
8	OSC2	IN	IN			48	CLK-IN	IN			
9	RESET	IN	RESET			49	DI-IN	IN			
10	X1	IN				50	CONT	OUT			
11	X2	IN				51	SW_IN(JA)	IN			ON
12	GND					52	SW_IN(JB)	IN			ON
13	MUSIC	(NC)				53	SW_IN(JC)	IN	OFF		
14	TX-POWER	OUT	OFF			54	SW_IN(JD)	IN	OFF		
15	PLL-TX	OUT	OFF			55	SW_IN(E)	IN	OFF		
16	GND					56	SW_IN(F)	IN	OFF		
17	GND					57	SW_IN(G)	IN	OFF		
18	TX-MUTE	OUT	MUTE-ON			58	SW_IN(H)	IN	OFF		
19	RX-DATA	IN				59	SLT-PITS	IN	SLT		
20	RX-MUTE	OUT	NORMAL			60	PULSE/TONE	IN	PULSE		
21	30dB	IN				61	PAGE	IN	KEY-OFF		
22	20dB	IN		NO CARRIER		62	GND				
23	PAGE	IN				63	GND				
24	GND	OUT	LED-OFF			64	GND				
25	GND					65	EXT-RX	IN			
26	TXDATA-8R	OUT				66	EXT-TX	OUT			
27	TXDATA-4R	OUT				67	EEPROM-CLK	OUT			
28	TXDATA-2R	OUT				68	EEPROM-DI	OUT			
29	TXDATA-R	OUT				69	EEPROM-D0	IN			
30	L-TXDATA-128R	OUT				70	EEPROM-CS	OUT			
31	L-TXDATA-64R	OUT				71	PLL-RST	OUT			
32	L-TXDATA-32R	OUT				72	PLL-DATA	OUT			
33	L-TXDATA-16R	OUT				73	PLL-CLOCK	OUT			
34	L-TXDATA-8R	OUT				74	PLL-UNLOCK	IN	UNLOCK		
35	L-TXDATA-4R	OUT				75	GND				
36	L-TXDATA-2R	OUT				76	SEL(VCC)	IN			
37	L-TXDATA-R	OUT				77	GND				
38	ALARM	OUT				78	GND				
39	GND	OUT	ON			79	VCC				
40					OFF	80	GND				

### - CPU Terminal Explanation (original function)

Ref No.	Pin Name	Classification	I/O	Function
79	Vcc	Power source	/\	Apply the power source voltage.
12	GND		/\	Ground it.
6	TEST	System control	I	Connect it to Vcc potential.
9	RESET		I	This is for resetting MCU.
7	OSC1		I	These are input and output terminals for system clock oscillator.
8	OSC2		O	Connect them to ceramics oscillator, crystal oscillator or outside oscillation circuit.
10	X1		I	These are input and output terminals for subsystem clock oscillator.
11	X2		O	Connect them to 32.768kHz crystal oscillator.
25	STOPC		I	This is an input terminal to change from stop mode to active mode.
76	SEL		I	This is a terminal for selecting system clock minute cycle rate, in case of right after resetting and changing from stop mode to active mode. Connect Vcc potential for 4 minutes cycle and GND potential for 32 minutes cycle.
13~24	D0~D11	Port	I/O	This input and output terminals can access every 1 bit. D0~D3 are large current source terminals (max. 10mA), and D4~D11 are large current sink terminals. (max. 15ma)
25,26	D12,D13		I	These input terminals can access every 1 bit.
27~75	RO0~RC0		I/O	These input and output terminals can access every 4 bits.
1~5	RDo~RD2,RF0		I	These input terminals can access every 4 bits.
26~30	INT0~INT4	Interruption	I	These input terminals are for external interruption.
78	TONER	DTMF generation circuit	O	This is a Row side output terminal for DTMF signal.
77	TONEC		O	This is a Column side output terminal for DTMF signal.
80	TV <sub>ref</sub>		/\	This is a standard level power source terminal for DTMF signal. Voltage condition is V <sub>cc</sub> ≥ VT <sub>ref</sub> ≥ GND.
42,43	EVNB,EVND	Timer	I	These are event input terminals for the timer.
39~41	TOB,TOC,TOD		O	These are output terminals for the timer.
44,48	SCK1,SCK2	Serial interface	I/O	These are clock input and output terminals for serial interface.
45,49	SI1,SI2		I	These are receiving data input terminals for serial interface.
46,50	SO1,SO2		O	These are transmitting data output terminals for serial interface.
1~4	COMP0~COMP3	Comparator	I	These are analog input terminals for comparator.
5	VC <sub>ref</sub>		/\	This is an input terminal for comparators standard level voltage.

## 6.2. IC8

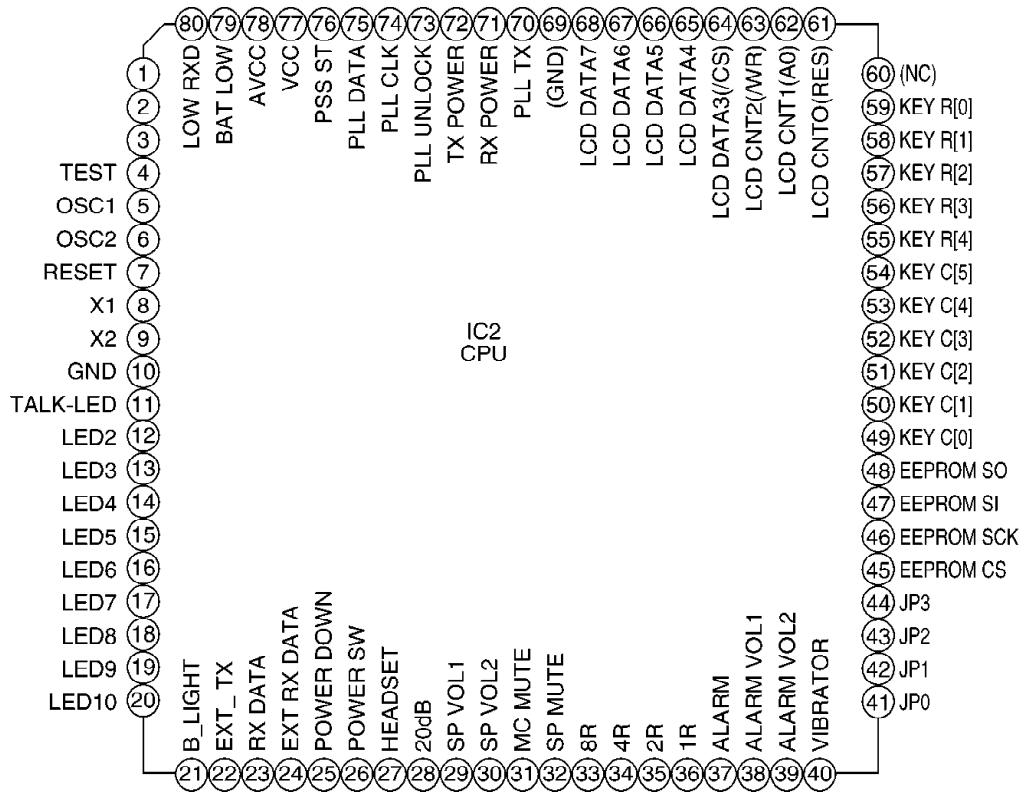


### - CPU Terminal Explanation (original function)

Ref No.	Pin Name	Classification	I/O	Function
21 18	V <sub>dd</sub> V <sub>ss</sub>	Power supply		Apply the power source voltage.
19 20	OSC <sub>1</sub> OSC <sub>2</sub>	Clock input Clock output	I O	Oscillation terminal for connection of an oscillator. Feedback resistance is built-in.
24	RST	Reset input	I	RESET mode is on when "L" level is input for 1 machine cycle or more. The pull-up resistance and the Schmitt input circuit are built-in. After the RESET mode is off, the internal RESET is released 2 <sup>13</sup> count of OSC input clock.
25	SYNC	Synchronous signal output	I	Internal timing signal is output at every a machine cycle.
17	IRQ	External interrupt input	I	For interrupt at a negative edge. The Schmitt input circuit is built-in. The pull-up resistance can be designated by software option.
22	SIRQ	External interrupt input	I	For unconditional interrupt at a negative edge. The Schmitt input circuit is built-in. The pull-up resistance can be designated by software option.
12	SBT (PC0)	Serial interface clock I/O	I/O (I)	I/O terminal for transmission and reception of serial interface clock. This can be used as the normal input port. The Schmitt input circuit is built-in. The pull-up resistance can be designated by software option.
13	SBO (PC1)	Serial interface data output	O (I)	Output terminal for transmission of the serial interface data (8-bit serial data). This can also be used as the normal input port. The pull-up resistance can be designated by software option.
14	SBI (PC2)	Serial interface data input	I (I)	Input terminal for transmission of the serial interface data (8-bit serial data). This can also be used as the normal input port. The pull-up resistance can be designated by software option.
15	TC20 (PC3)	8-bit Presettable counter data output	O (I)	Output terminal of overflow signal of the built-in 8-bit presettable counter. This can also be used as the normal input port. The pull-up resistance can be designated by software option.
23	DTMF	DTMF signal output	O	Output terminal of the staircase signal in which two types of frequency signals are mixed. ON/OFF of output can be controlled by program.

## 7. IC DATA (KX-T7885WR)

### 7.1. IC2 (CPU)



### - CPU Terminal assignment

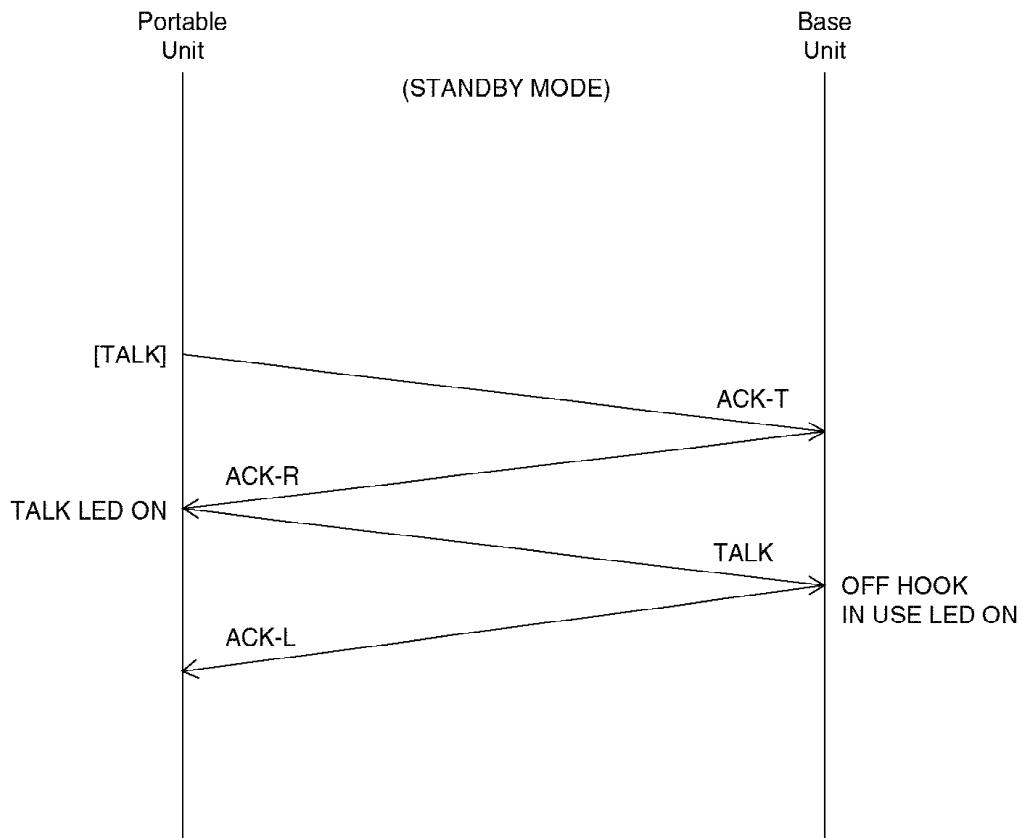
Pin	Description	I/O	High	High-Z	Low
1	CHARGE	IN(A/D)			
2	GND	IN			
3	AVss	IN			
4	TEST	IN			
5	OSC1	IN			
6	OSC2	IN			
7	RESET	IN	RESET		NORMAL
8	X1	IN			
9	X2	IN			
10	GND	IN			
11	TALK_LED	OUT	ON	OFF	OFF
12	LED2(F1-G)	OUT	OFF	OFF	ON
13	LED3(F1-R)	OUT	OFF	OFF	ON
14	LED4(F2-G)	OUT	OFF	OFF	ON
15	LED5(F2-R)	OUT	OFF	OFF	ON
16	LED6(F3-G)	OUT	OFF	OFF	ON
17	LED7(F3-R)	OUT	OFF	OFF	ON
18	LED8(F4-G)	OUT	OFF	OFF	ON
19	LED9(F4-R)	OUT	OFF	OFF	ON
20	LED10(RCV-G)	OUT	OFF	OFF	ON
21	B_LIGHT(LED)	OUT	OFF	OFF	ON
22	EXT-TX	OUT			
23	RX-DATA	IN			
24	EXT-RX-DATA	IN			
25	POWER_DOWN	IN	NORMAL		
26	POWER_SW	IN	SW-OFF		
27	HEADSET(detect)	IN	HEADSET		
28	20dB	OUT	no carrier		
29	SP_VOL1	OUT	vol-low		
30	SP_VOL2	OUT	vol-middle		
31	MIC_MUTE	OUT	mute-on		
32	SP_MUTE	OUT	NORMAL		
33	TXDATA-8R	OUT			
34	TXDATA-4R	OUT			
35	TXDATA-2R	OUT			
36	TXDATA-R	OUT			
37	ALARM	OUT			
38	ALARM_VOL1	OUT	ALARM-VOL-HIGH		
39	ALARM_VOL2	OUT	ALARM-VOL-MID		
40	VIBRATOR	OUT	ROTATE		
41	JP0	IN			
42	JP1	IN			
43	JP2(LO-DATA-EDGE)	IN	FALL-EDGE		RISE-EDGE
44	JP3	IN			
45	EEPROM_CS	OUT			
46	EEPROM_SCK	OUT			
47	EEPROM_SI	OUT			
48	EEPROM_SO	IN			
49	KEY_C[0]	OUT	OFF		STROBE-ON
50	KEY_C[1]	OUT	OFF		STROBE-ON
51	KEY_C[2]	OUT	OFF		STROBE-ON
52	KEY_C[3]	OUT	OFF		STROBE-ON
53	KEY_C[4]	OUT	OFF		STROBE-ON
54	KEY_C[5]	OUT	OFF		STROBE-ON
55	KEY_R[4]	IN	OFF		KEY-ON
56	KEY_R[3]	IN	OFF		KEY-ON
57	KEY_R[2]	IN	OFF		KEY-ON
58	KEY_R[1]	IN	OFF		KEY-ON
59	KEY_R[0]	IN	OFF		KEY-ON
60	(NC)				
61	LCD-CNT0[RES]	OUT	RESET		NORMAL
62	LCD-CNT1[A0]	OUT			WRITE
63	LCD-CNT2[WR]	OUT			CHIP SELECT
64	LCD-CNT3/CS]	OUT			
65	LCD-DATA4	IN			
66	LCD-DATA5	OUT			
67	LCD-DATA6	OUT			
68	LCD-DATA7	OUT			
69	GND	IN			
70	PLL_TX	OUT	OFF		TX-PLL ON
71	RX-POWER	OUT	OFF		RX-POWER-ON
72	TX-POWER	OUT	OFF		TX-POWER-ON
73	PLL_UNLOCK	IN	UNLOCK		LOCK
74	PLL_CLK	OUT			
75	PLL_DATA	OUT			
76	PLL_ST	OUT			
77	AVCC	IN			
78	AVCC	IN			
79	BAT_LOW	IN(A/D)			
80	LOW_RXD	IN(A/D)			

## - CPU Terminal Explanation (original function)

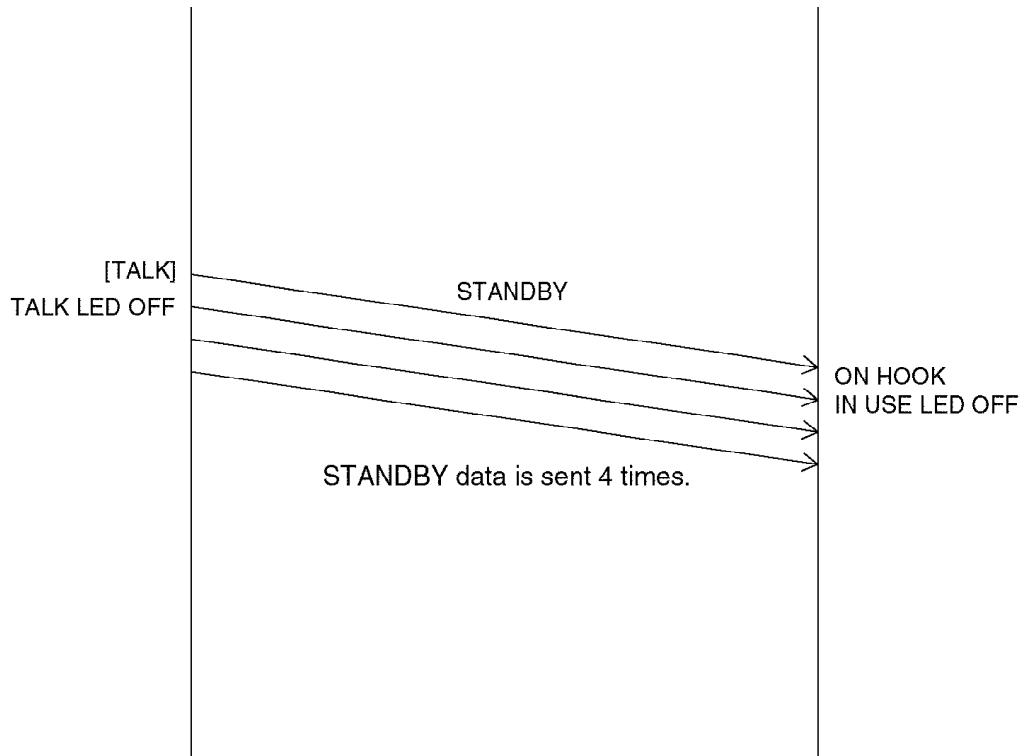
Ref No.	Pin Name	Classification	I/O	Function
77	Vcc	Power source	/	Apply the power source voltage.
10	GND		\	Ground it.
4	TEST	Test	I	Connect it to Vcc potential.
7	RESET	Reset	I	This is for resetting MCU.
5	OSC <sub>1</sub>	Oscillation	I	These are input and output terminals for inside oscillator.
6	OSC <sub>2</sub>		O	Connect them to ceramics oscillator, crystal oscillator or outside oscillation circuit.
8	X <sub>1</sub>		I	These are input and output terminals for clock oscillator.
9	X <sub>2</sub>		O	Connect them to 32.768kHz crystal oscillator.
11~22	D <sub>0</sub> ~D <sub>11</sub>	Port	I/O	These are input and output terminal to address every 1 bit. D <sub>0</sub> ~D <sub>9</sub> are large current output terminals which can supply maximum 15A current to each terminal.
23,24	D <sub>12</sub> ,D <sub>13</sub>		I	These are input terminals to address every 1 bit.
25~76	RO <sub>0</sub> ,RC <sub>3</sub>		I/O	These are input and output terminals to address every 4 bit.
24~27	INT <sub>0</sub> ,INT <sub>1</sub> ,INT <sub>2</sub> ,INT <sub>3</sub>	Interruption	I	These are input terminals for external interruption.
23	STOPC	Stop clear	I	This is an input terminal for changing from stop mode to active mode.
42,46	SCK <sub>1</sub> ,SCK <sub>2</sub>	Serial interface	I/O	These are input and output terminals for serial interface clock.
43,47	S <sub>1</sub> ,S <sub>2</sub>		I/O	These are receiving data input terminals for serial interface.
44,48	SO <sub>1</sub> ,SO <sub>2</sub>		I/O	These are transmitting data output terminals for serial interface.
37~39	TOB,TOC,TOD	Timer	O	These are output terminals for the timer.
40,41	EVNB,EVND		I	These are event count input terminals.
78	AVcc	A/D conver	/	This is a power source terminal for A/D converter. Connect it to the nearest position to Vcc terminal with same potential as Vcc.
3	AVss		/	This is a ground terminal for AVcc. Connect it to the nearest position to GND terminal with same potential as GND.
79,80,1.2	AN <sub>0</sub> ,AN <sub>3</sub>		I	These are analog input terminals for A/D converter.

## 8. EXPLANATION OF CPU DATA COMMUNICATION

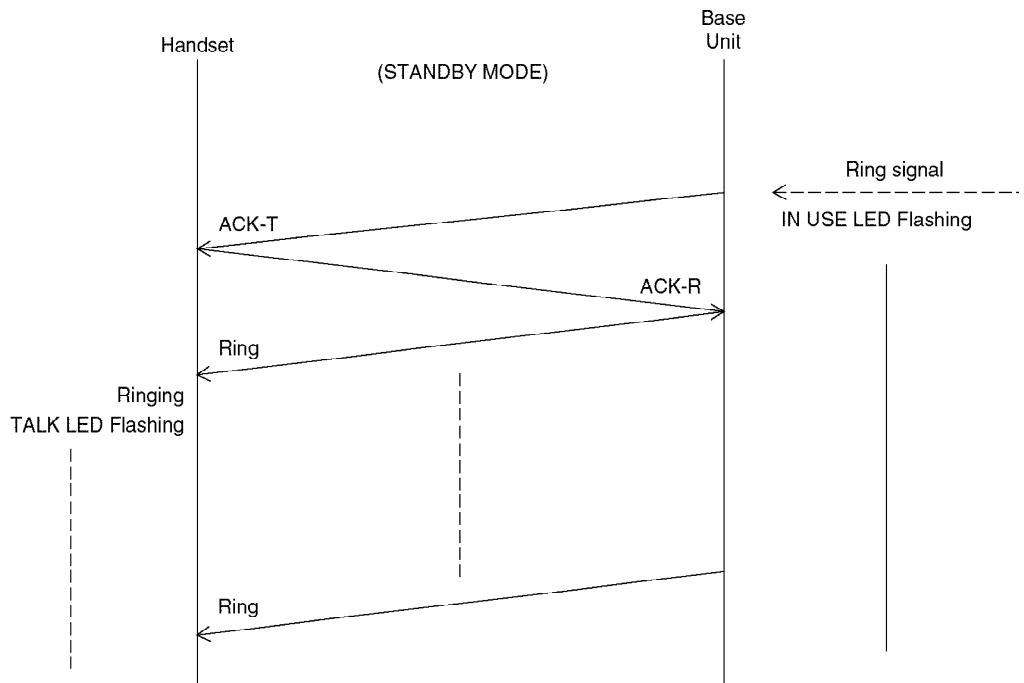
### 8.1. Calling



### 8.2. To Terminate Communication



### 8.3. Ringing



After detecting the ring signal from circuit, the base Unit sends a LINK form requesting DATA (ACK-T) to the Handset. When receiving this data, the Handset returns a permitting DATA (ACK-R) to the Base Unit. After receiving the returned DATA from the Handset, the Base Unit sends a ring signal DATA (Ring), then the Handset starts ringing.

### 8.4. Ports for Transmitting and Receiving of Data

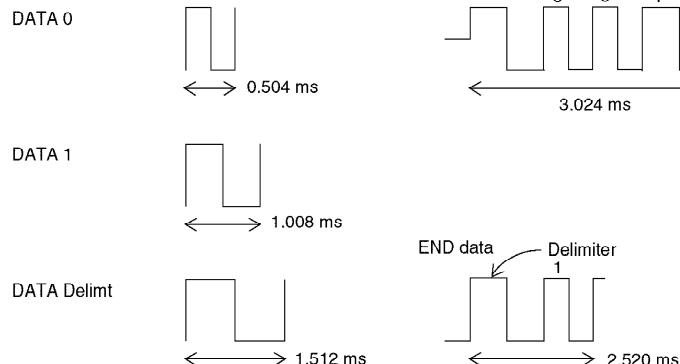
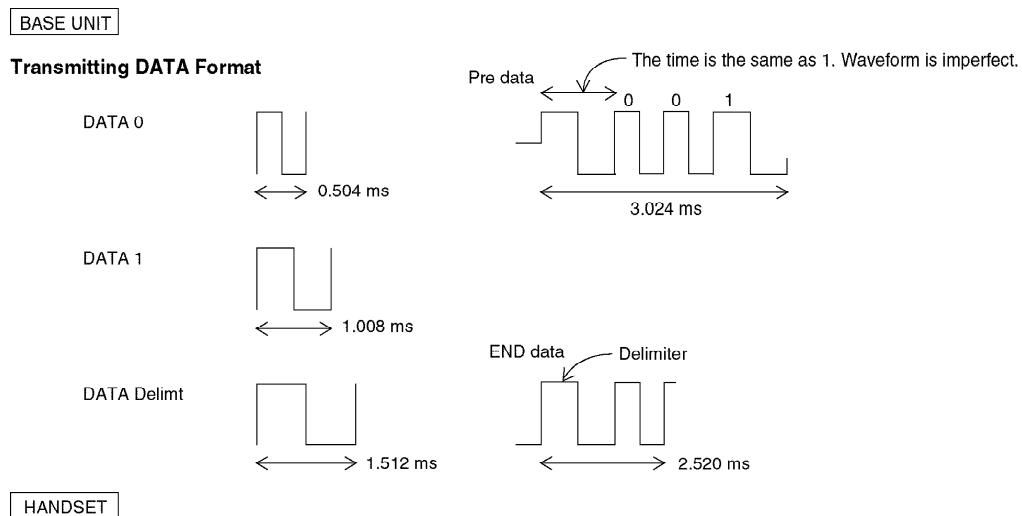
**Base Unit:**  
transmitting ... 27~30 Pin receiving ... 19 Pin

**Handset:**  
transmitting ... 33~36 Pin receiving ... 23 Pin

## 8.5. Wave Form of DATA Used for Cordless Transmission and Reception

The DATA which is transmitted from the Handset to the Base Unit is combination of DATA 0, DATA 1, DATA Delimit, Pre data and End data of P1.

The DATA which is transmitted from the Base Unit to the Handset is combination of DATA 0, DATA 1, DATA Delimit, Pre data and End data of P2.



## 8.6. Dial Data

During dialing, the dial data is sent from the portable unit (handset) to the base unit in the above-mentioned format. The lower significant 4 bits of the command is changed by the dial number. When the key is kept depressed during tone dialing, the data (CONTINUE DATA) informing that the key is continued depressed is sent to the base unit.

## NOTE

1,000,000 kinds of the security code are available for the model KX-T7885W.

### FREQUENCY TABLE

CH-NO	Base Unit TX Portable Unit RX	Base Unit RX Portable Unit TX	CH-NO	Base Unit TX Portable Unit RX	Base Unit RX Portable Unit TX
	(MHz)	(MHz)		(MHz)	(MHz)
1	902.125	926.125	33	902.925	926.925
2	902.150	926.150	34	902.950	926.650
3	902.175	926.175	35	902.975	926.675
4	902.200	926.200	36	903.000	927.000
5	902.225	926.225	37	903.025	927.025
6	902.250	926.250	38	903.050	927.050
7	902.275	926.275	39	903.075	927.075
8	902.300	926.300	40	903.100	927.100
9	902.325	926.325	41	903.125	927.125
10	902.350	926.350	42	903.150	927.150
11	902.375	926.375	43	903.175	927.175
12	902.400	926.400	44	903.200	927.200
13	902.425	926.425	45	903.225	927.225
14	902.450	926.450	46	903.250	927.250
15	902.475	926.475	47	903.275	927.275
16	902.500	926.500	48	903.300	927.300
17	902.525	926.525	49	903.325	927.325
18	902.550	926.550	50	903.350	927.350
19	902.575	926.575	51	903.375	927.375
20	902.600	926.600	52	903.400	927.400
21	902.625	926.625	53	903.425	927.425
22	902.650	926.650	54	903.450	927.450
23	902.675	926.675	55	903.475	927.475
24	902.700	926.700	56	903.500	927.500
25	902.725	926.725	57	903.525	927.525
26	902.750	926.750	58	903.550	927.550
27	902.775	926.775	59	903.575	927.575
28	902.800	926.800	60	903.600	927.600
29	902.825	926.825			
30	902.850	926.850			
31	902.875	926.875			
32	902.900	926.900			

## 9. ID ROM REPLACEMENT (KX-T7885WH)

To overwrite ID, connect TOOL (PSZTT7880M) to pins (65) (RX) and (66) (TX) on CPU (IC4), then operate by terminal.

The pin (65) (RX) inputs data receiving from TOOL (PSZTT7880M), and the pin (66) (TX) outputs data to TOOL (PSZTT7880M).

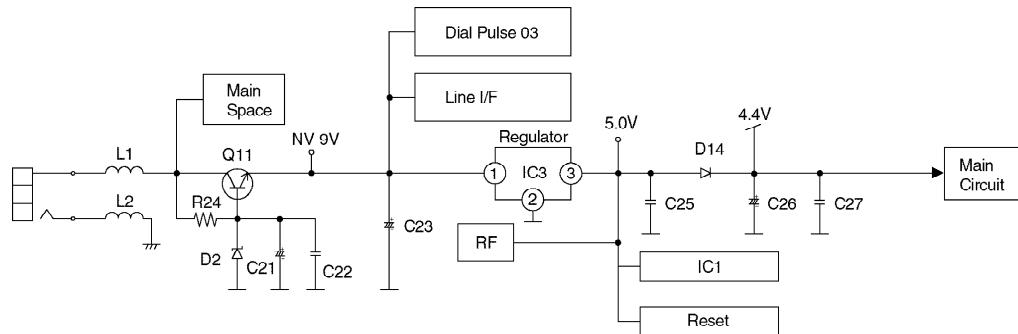
TOOL connection is see page 8. For details, please refer "KX-T7885 TEST JIG Operating Instruction" issued as a supplement of Service Manual.

## 10. CIRCUIT OPERATION (KX-T7885WH)

### 10.1. Main Board

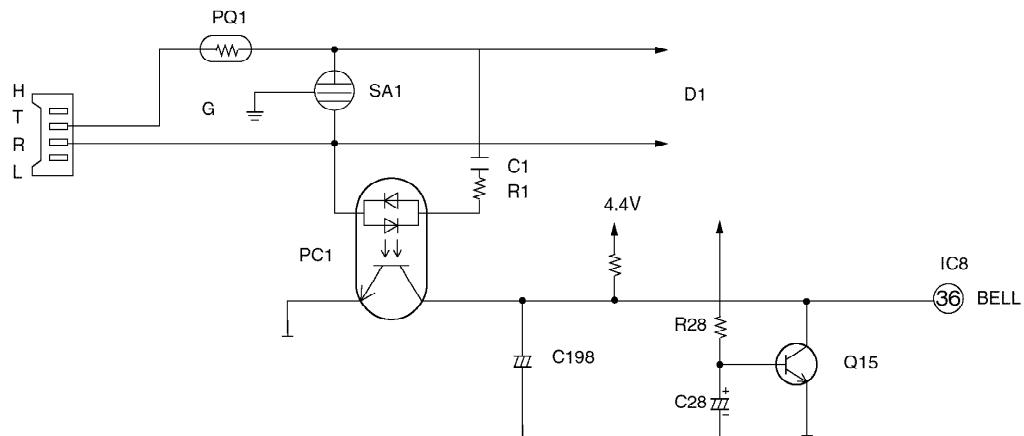
#### 10.1.1. Power supply circuit

The Voltage between 12V and 18V is supplied to the DC Jack from the AC adaptor. Power at stabilized 11V is supplied to the dial pulse and line interface circuits through the 1st regulator Q11. The voltage is stabilized to 5V through Q11 and the 2nd regulator IC3, and supplied to the Reset and Main circuit. The power for the microcomputer is supplied through D14 at 4.4V. The power for the RF unit is supplied at 5V.



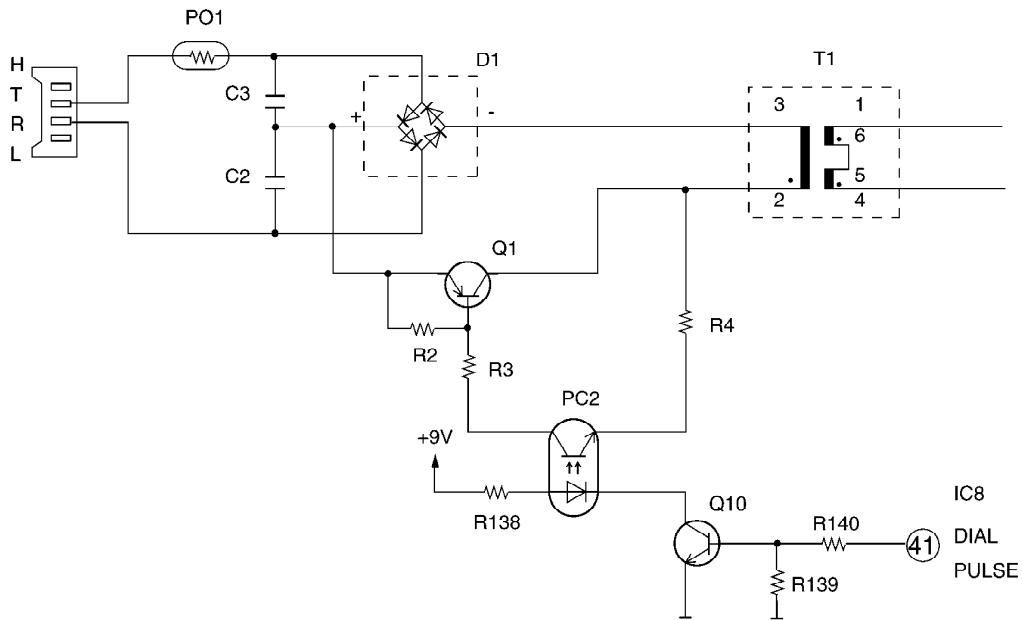
### 10.1.2. Bell detector circuit

When the Bell signal is input between T/R, the signal of which waveform is shaped through C1 → R1 → PC1 is input to pin (36) of the IC8. When the CPU detects the Bell signal, pin (24) repeats High/Low fluctuation and then D10 in use is flashed. The data signal generated by pins (27) - (30) of the CPU is sent to the portable unit through RF unit and then the handset ringer is on.



### 10.1.3. Line interface

The line is looped when pin (41) of the CPU becomes High and Q10, PC2 and Q1 are ON. The looped current flows through T → D1 → Q1 → T1 → D1 → R. The pulse signal is generated when pin (41) of the IC8 is repeatedly turned ON/OFF.



#### 10.1.4. Reception voice switch

The received voice signal is input to pin (9) of IC1 (AMP input) through IC2 from the line, and flows through pin (13) (limiter AMP input), pin (18) (compounder input) and pin (21) (high-pass filter input), then through the low-pass filter (that cuts off 3.8 kHz), and is output to the RF block. The alarm, DTMF monitoring, Pulse monitoring and data are input to pin (13) of IC1 through the resistors and capacitors from each microcomputer's ports, and output to the RF block in the same way.

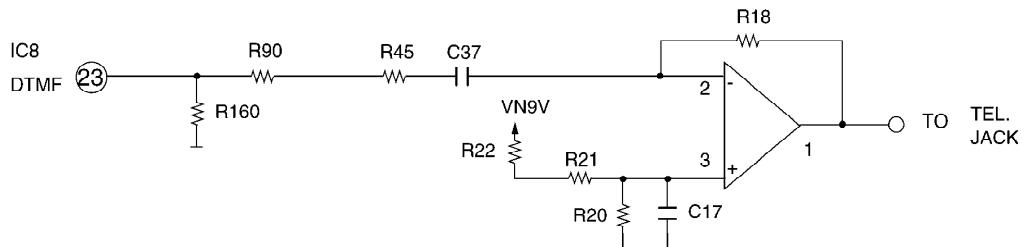
#### 10.1.5. Sending-speech-signal

The signal received on the RF unit is input to pin (47) of IC1 as the 21.4 MHz IF signal, and output from pin (43) as the 455 kHz IF signal in the mixer circuit inside IC1. This signal is demodulated by passing through the FL1 (455 kHz band pass filter) and output from pin (56) as audio signal.

The demodulated audio signal is input to pin (36), flow through the LPF (that cuts off 4 kHz) in IC and amplified through the expander, and then output to the line through IC2 from pin (28).

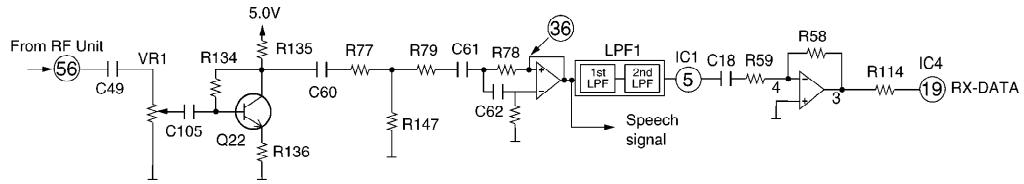
#### 10.1.6. DTMF signal

When the DTMF data from the portable unit is received, the DTMF signal is output from pin (23) of the IC8 and sent to the line through IC2.



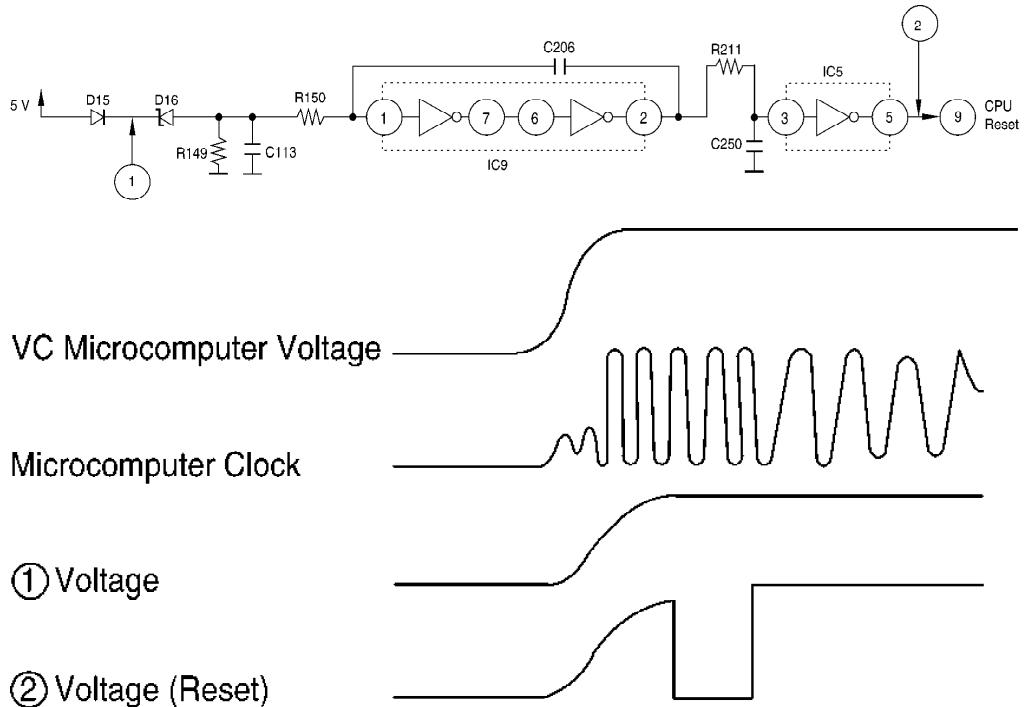
#### 10.1.7. Rx Data Processing

The received RX data is demodulated like the speech signal, output from pin (56) of IC1 and sent through the LPF (4 kHz) from pin (36). Then it is output from pin (5), amplified by the Data AMP of pins (3) and (4), input to pin (19) of the CPU and then detected.



### 10.1.8. Reset circuit

After the power supply to work is put, the voltage at point (1) is raised to the same microcomputer. However, since D16 is 3.0V senor, the voltage of RESET stays low until D16 is turned ON. When D16 is ON, the power down becomes high and the output of the RESET becomes low for about 20ms, the reset is activated.



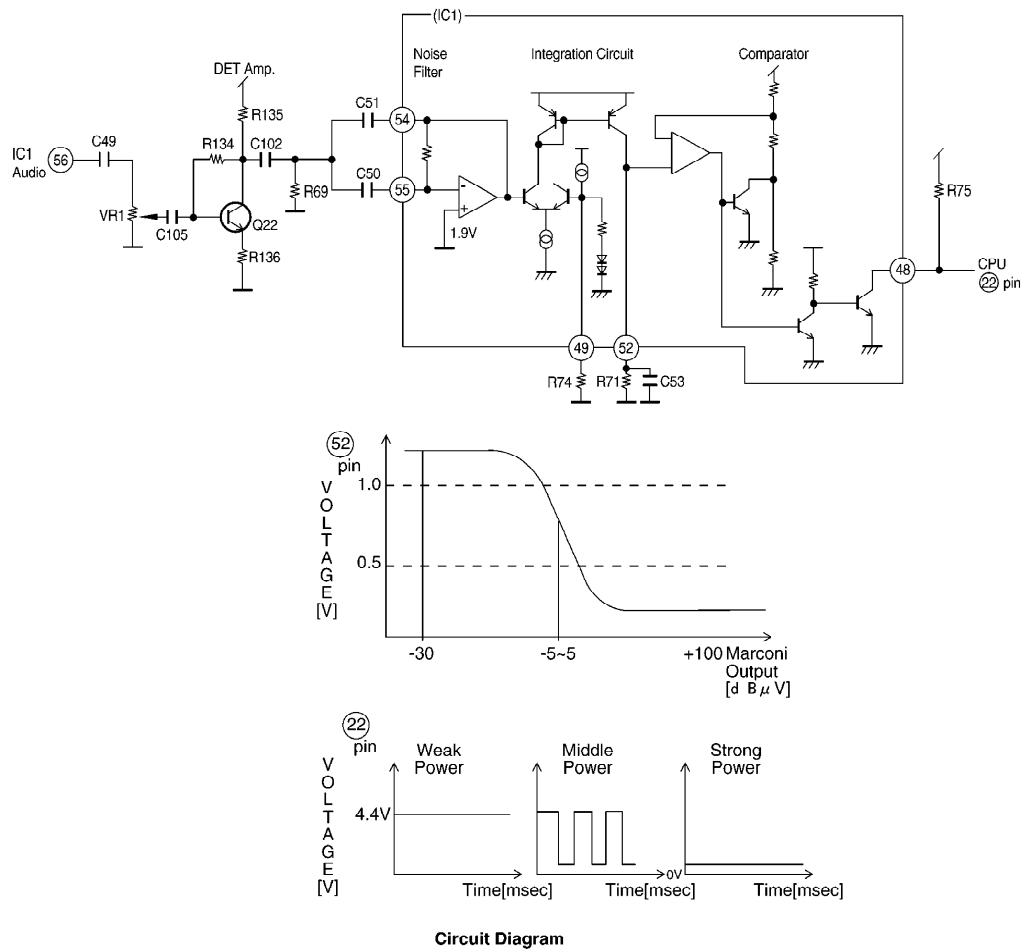
### 10.1.9. Electric Field Detection Circuit

The electric field detection circuit consists of the noise amplifier and noise detection circuit. This checks if there is electric field using the comparators (SQ2 and SQ1).

The received signal is amplified by the noise amplifier of IC1 (53) and (54) and if there is much noise, the output of SQ1 and SQ2 becomes High and the CPU judges that there is no electric field.

If there is less noise, the output of SQ1 and SQ2 becomes Low and the CPU judges that there is electric field.

The 20 dB  $\mu$  V/m circuit (SQ2) is used for judging squelch. The 30 dB  $\mu$  V/m circuit (SQ1) is used for weak electric field alarm.



Circuit Diagram

### 10.1.10. Data communication circuit

#### Function

The data communication circuit serves the following function (at the EMSS mode): Information exchanger between the EMSS and EMMSS proprietary telephone, key input information as well as data for the LED control, etc. this information is continuously exchanged at all times.

#### Circuit Operation

When the EMSS proprietary telephone receives an IRQ signal from the EMSS and after sending the key input information (19 pulses) to the EMSS and receiving data (47 pulses) for LED control, etc. the EMSS proprietary telephone will return to the EMSS an acknowledge signal.

#### 1. Reception

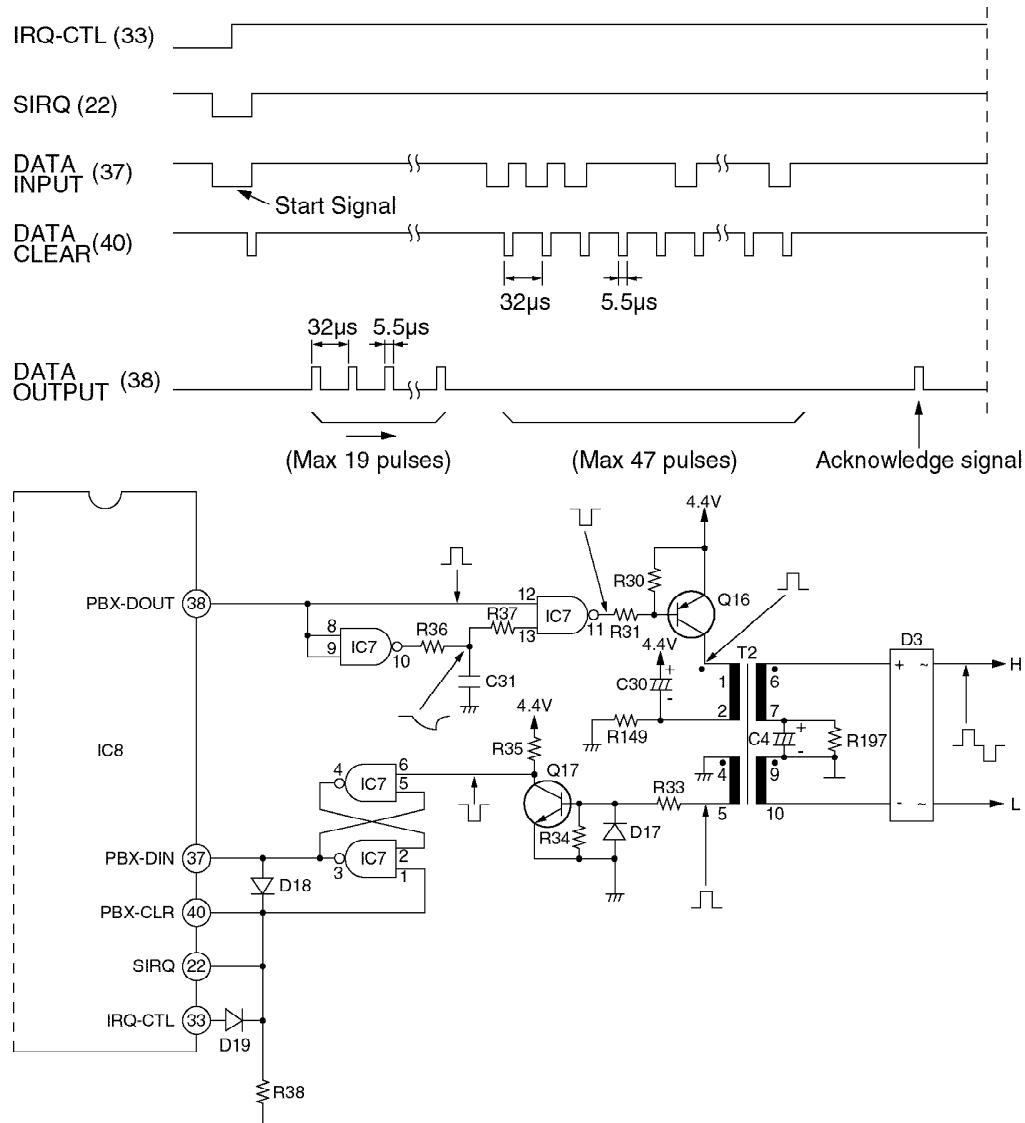
**The data from the EMSS is received via the H and L line along the path shown below.**

H, L Line → D3 → T2 → R33 → Q17 → IC7 → IC8 pin 37

#### 2. Transmission

**The data to the EMSS proprietary telephone is transmitted along the following path.**

**IC8 pin 38 → IC7 → R31 → Q16 → T2 → D3 → H, L Line**

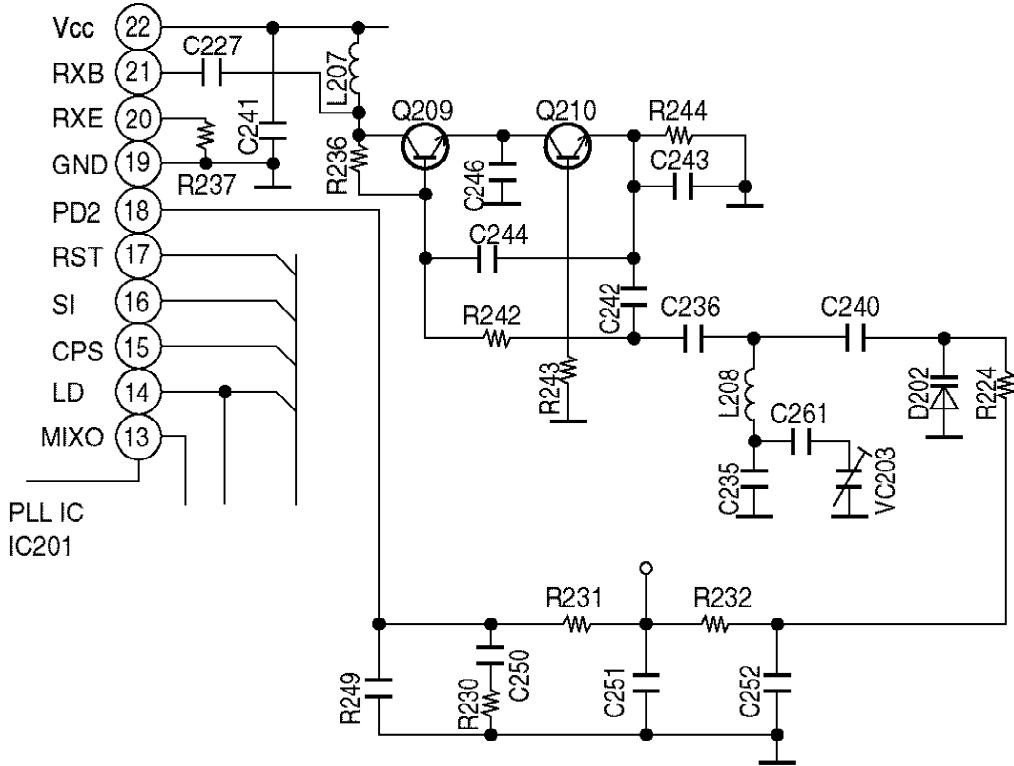


## 10.2. RF unit

### 10.2.1. Receiver VCO circuit

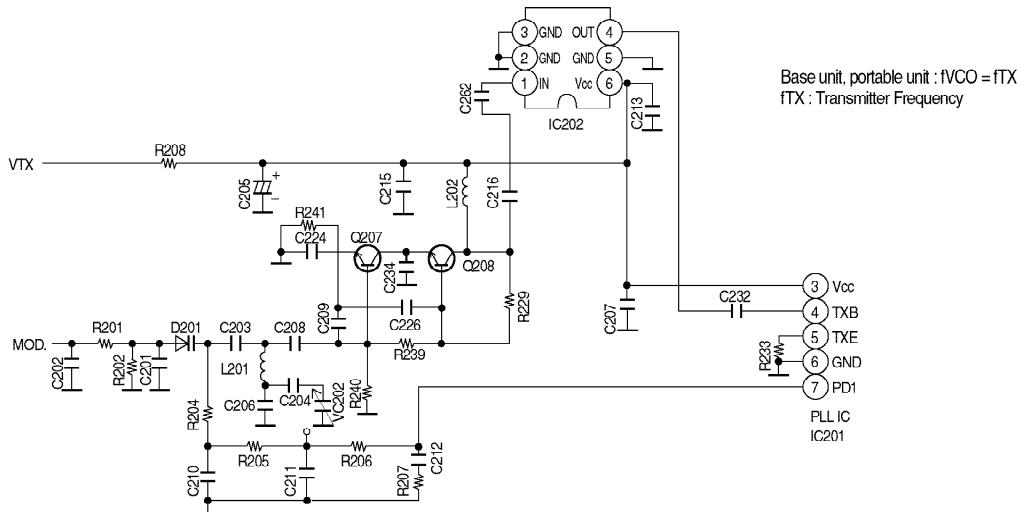
This circuit consists of Q209, Q210 and D202.

The control voltage of pin (18) of PLL IC is applied to D202 and the oscillation frequency is controlled. The trimmer VC203 regulates the oscillation frequency. The oscillation frequency in the band of 900 MHz is applied to the base of the buffer amplifier Q209 by C244 from the emitter Q210 and applied to pin (21) of PLL IC from the collector.



### 10.2.2. Electric field detection circuit

This circuit consists of Q207, Q208, D201. The control voltage of pin (7) of PLL IC is applied to D201 and the oscillation frequency is controlled. The trimmer VC202 regulates the oscillation frequency. The oscillation frequency in the band of 900 MHz is applied to the base of the buffer amplifier Q208 by C226 from the emitter Q207 and applied to pin (4) of PLL IC from collector via the buffer amplifier IC202.

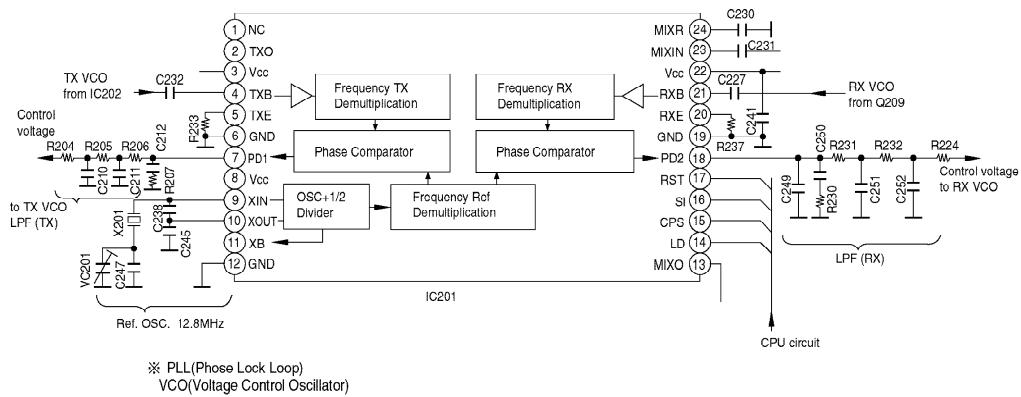


### 10.2.3. PLL circuit

IC201 includes two PLL circuit for transmission frequency and reception local frequency. The frequency in the band of 900 MHz supplied from TX VCO and RX VCO, and ref. OSC frequency (12.8 MHz) are divided into 12.5kHz frequency controlled by the CPU. The phases of the frequency from TX and RX and the reference frequency are compared each other, the control voltage is supplied to the VCO circuit from pins (7) and (18) so that the desired TX and

**RX frequencies are provided.**

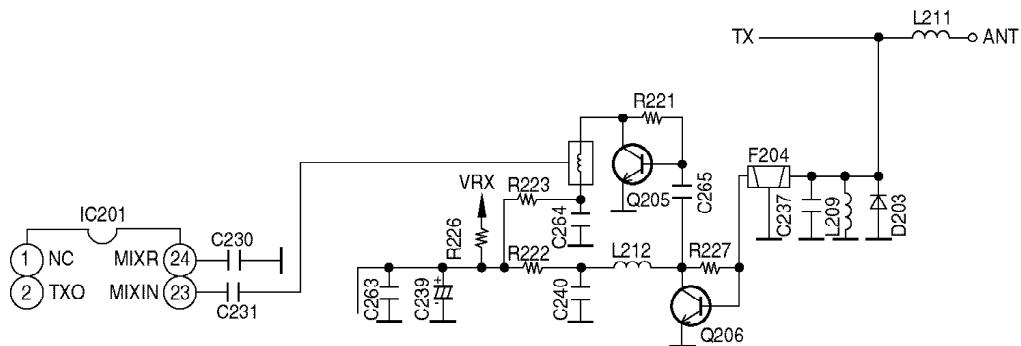
The VCO control signal (TX, RX frequency setting) of the PLL circuit is supplied to CPS pin (15), SI pin (16) and RST pin (17) from the CPU circuit. Also, the locked oscillation frequency of the VCO circuit is supplied to the CPU from pin (14) at "L".



## 10.2.4. Receiver RF circuit

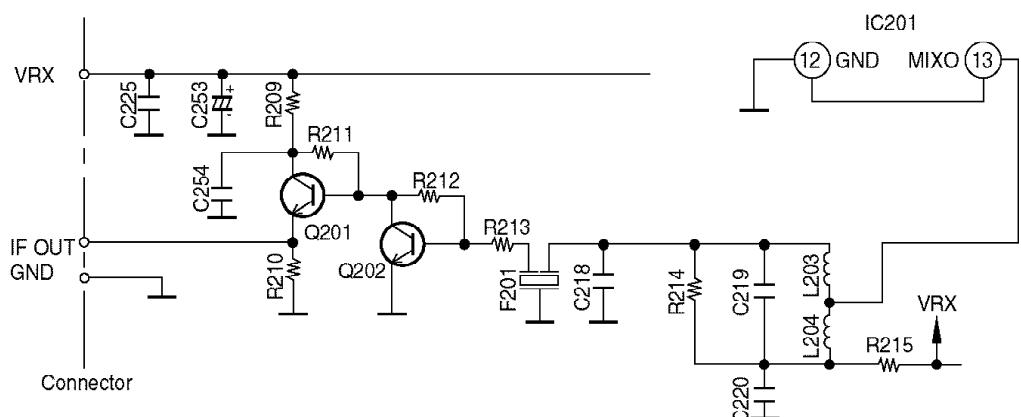
The electric wave received from the antenna is attenuated by the SAW filter except the received frequency band.

Then it is amplified by the RF amplifier Q and Q<sub>2</sub>, supplied to the IC pin (23) (MIXER input).



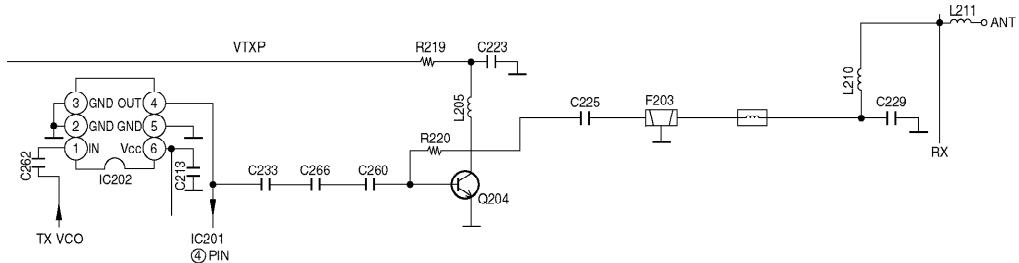
### 10.2.5. MIXER, IF circuit

The signal in the received frequency band supplied to IC201 pin (23) (MIXER input) is converted to 21.4 MHz of the 1st IF by the received to 21.4 MHz IF signal becomes an element of the  $\pm$  7.5 kHz band width by the MCF (Monolithic Ceramic Filter) F201 and is supplied IF amplifier Q202 and Q201.



## 10.2.6. TX power circuit

The TX VCO output signal flows through the buffer IC202 and it is supplied to the TX Power Amp.Q204 . The received signal is attenuated by the band pass filter F203 except its received frequency band. Then it is supplied to the antenna without having any influence on the Receiver RF circuit.



## 11. CIRCUIT OPERATION (KX-T7885WR)

### 11.1. Main Board

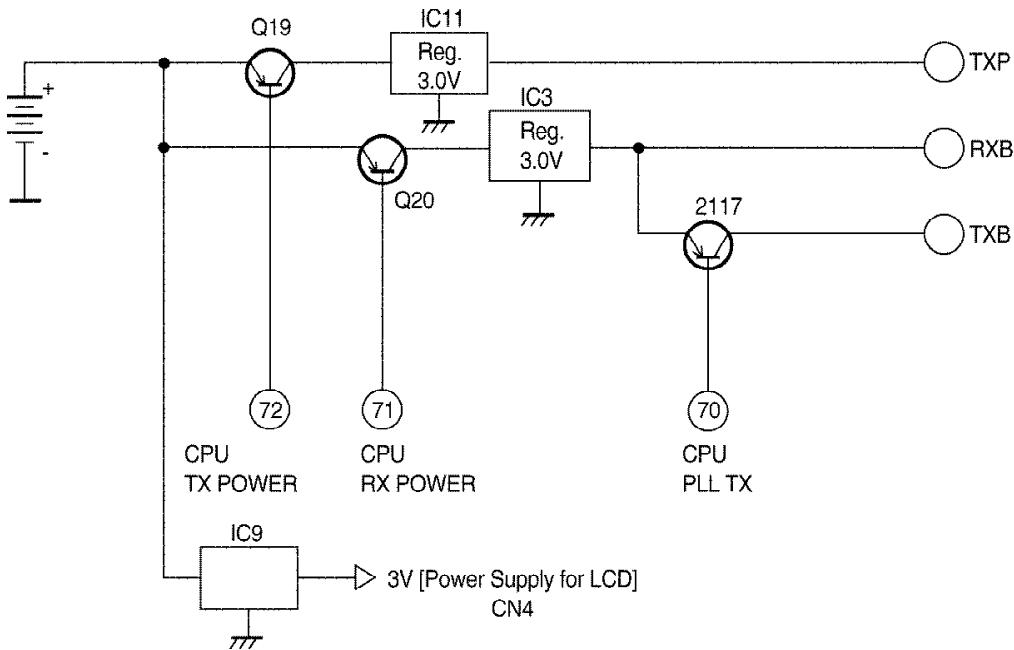
#### 11.1.1. RF transmission/reception power supply circuit

The power source for transmission is switched on and off by the CPU that IC6 controls Q19 and Q20 for battery current. It is

stabilized the constant voltage by the 3 V regulator and supplied to the RF unit and IF IC.

In the standby mode, Q20 is switched ON and 3 V is supplied to the RKB via IC3 only when pin (71) becomes Low.

In the TALK mode, when pins (72) and (70) are set to Low and Q20 and Q21 is switched ON, approx. 3V is supplied to the RXB and TXB. And then, pin (72) is set to Low, Q19 is ON is and 3 V is supplied to the TXPB via IC4.

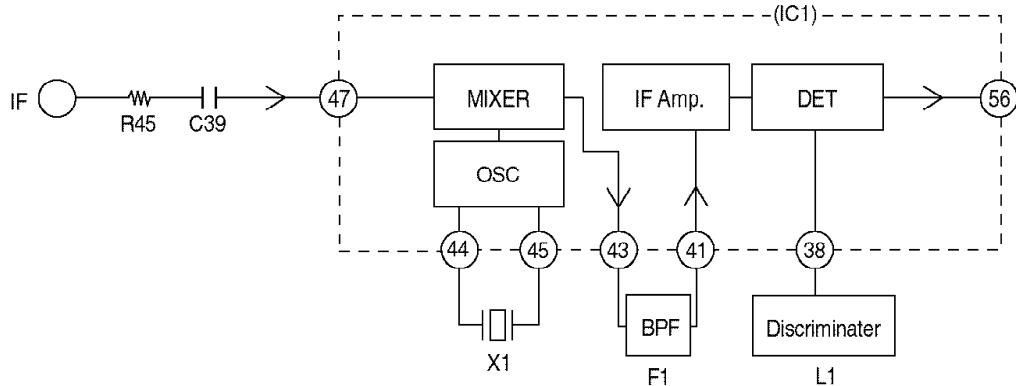


#### 11.1.2. IF reception section

The 21.4 MHz IF signal in the band width of  $\pm 7.5$  kHz that was received by the RF unit is input to pin (47) of IC1. It is mixed with the

2nd local frequency of 20.945 MHz and then filtered by F1 so that the 2nd IF frequency of 455 kHz is supplied to the IF Amp. of IC1.

The 2nd IF signal is demodulated the wave detector of IC1 and sent to pin (56) as the audio signal.



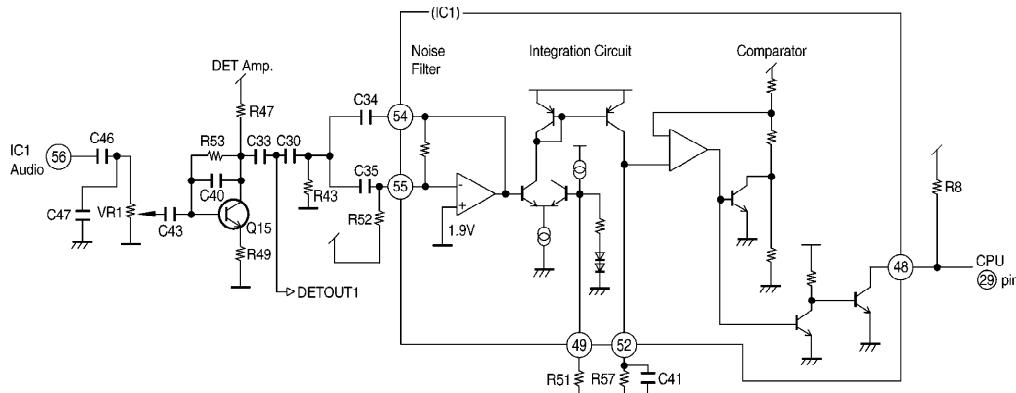
### 11.1.3. Electric field detection circuit

The electric field detection circuit that consists of the DET Amp., IC's noise filter, integration circuit and comparator detects the electric filed by checking noise.

The audio signal is out from IC1 pin (56). It is amplified by the DET amplifier. Noise is filtered by 18 kHz BPF in IC1. Noise is converted to the De voltage in the integration circuit. The De voltage is input to the comparator to gain High and Low outputs.

Pin (49) decides the sensitivity of the integration circuit and pin (52) decides the time constant. In the strong electric field, the De voltage of pin (52) is 0.5 V, pin (48) outputs Low (0V).

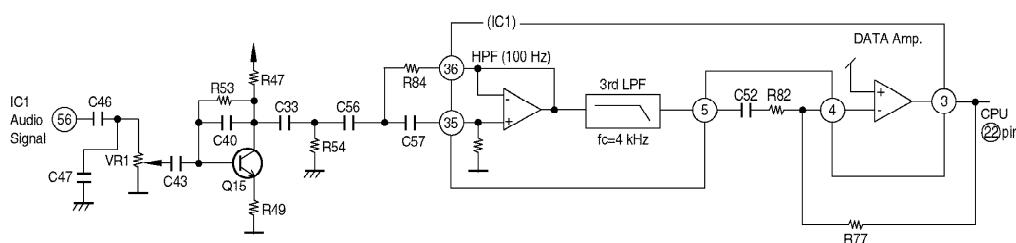
In the weak electric field, the De voltage of pin (52) is approx. 1 V, pin (48) outputs High (4.4 V).



### 11.1.4. Received Data Circuit

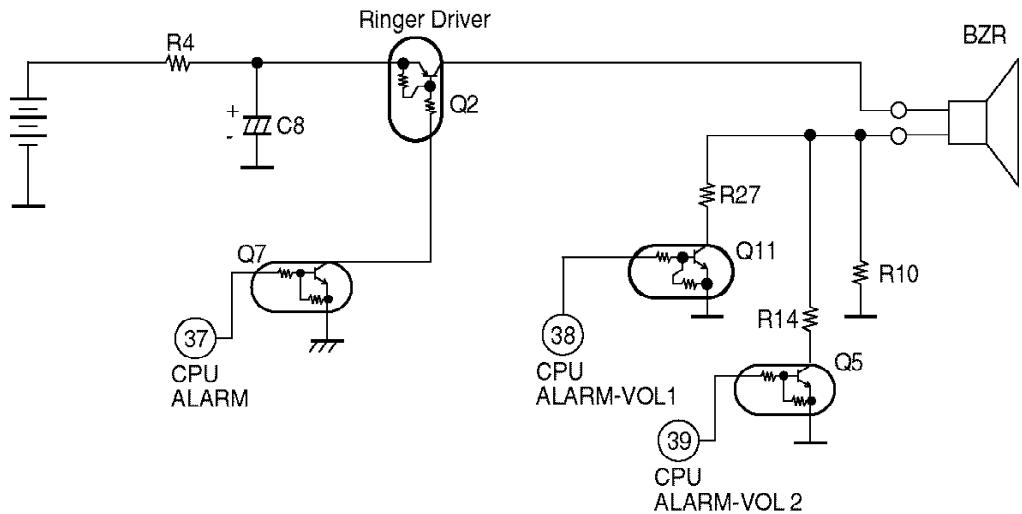
The RX Data circuit consists of the HPF, LPF and Data Amp.

The received RX data is output to pin (56) of IC1 the same as the audio signal. The data frequency is a digital signal of 600Hz ~ 2000Hz. The data signal passes the HPF of pins (35) and (36) and the LPF in IC1. The data signal passes the LPF in IC1 and is output at pin (5) as a digital signal of 100Hz ~ 4000Hz. It is amplified in the data amplifier of pins (3) and (4) and detected after it is sent to pin (22) of the CPU.



### 11.1.5. Ringer circuit

When the Ring signal is received with the power switch of the handset ON, the ringer is activated. When the ring signal is received, pin (38) and pin (39) are set High or Low. (Depends on Ringer Vol setting) After Q11 and Q5 are set High or Low, Q7 is switched on by the ringer frequency in pin (37) (Q2 is a High Current Driver) and then the buzzer is ON.

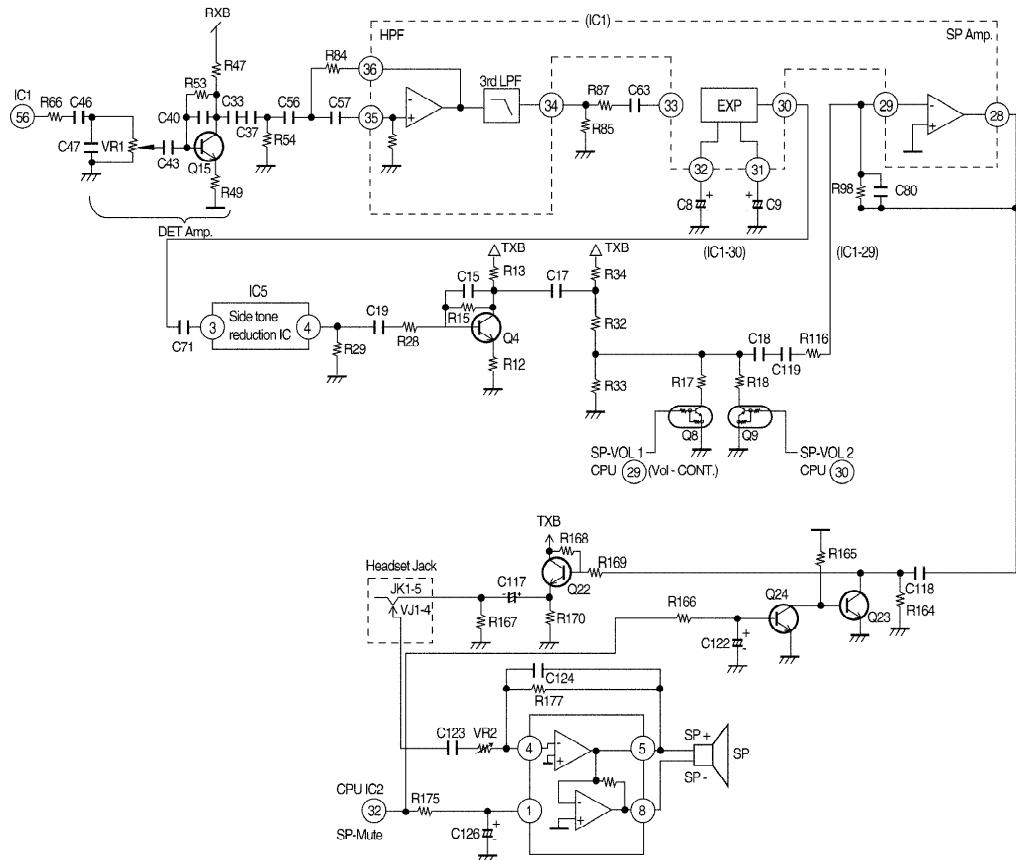


### 11.1.6. Reception signal circuit

The reception circuit consists of the DET (Detector) amplifier, and IC1's HPF, LPF, Expander and Handset amplifier. The receiver voice signal is output to pin (34) as an audio signal of 2000-2400 Hz via the HPF and LPF of IC1 to eliminate unnecessary elements, after it is amplified by the DET amplifier just the same way for the RX data. The amplified received voice signal is input to the expander from pin (33) because it is the demodulated signal compressed in the base unit. The expanded signal is output to pin (30) and loading to the side tone reduction IC (IC5) and go through to the volume control circuit (Q4, Q8, Q9) and it is amplified by the SP amplifier of pins (28) and (29), and sent to Headset Mute circuit and go through Emitter follower and SP Amp (IC10).

Q23, Q24 functions as a muting circuit, when using the Headset. (SP-mute signal from CPU 32 pin) the Final Amp is IC10.

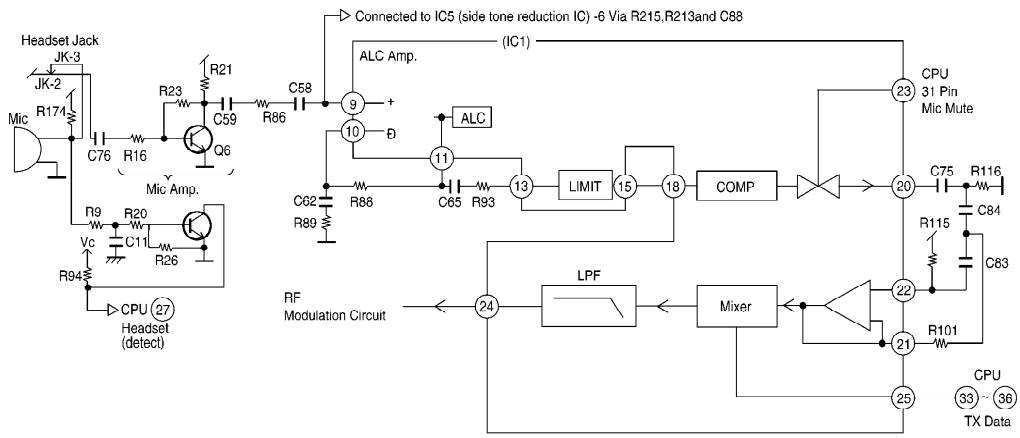
This Amp operates as BTL Amp.



### 11.1.7. Sending signal

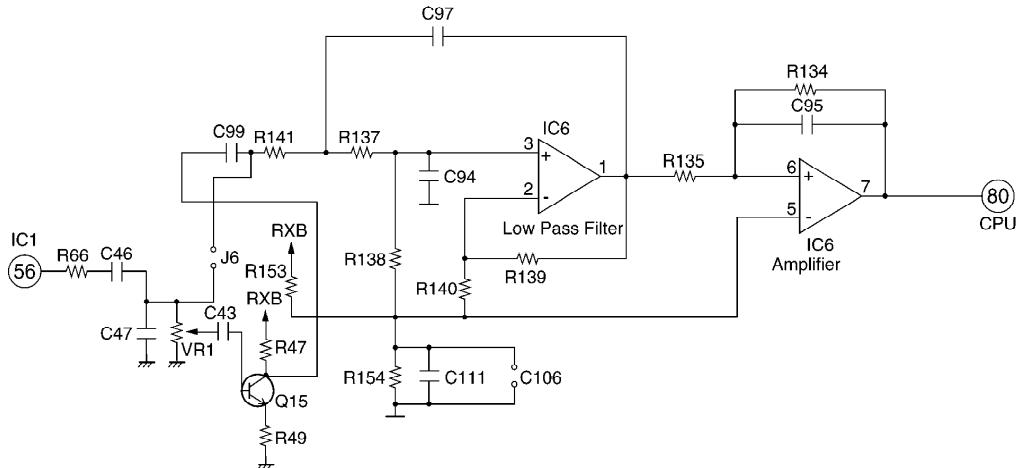
The received voice signal from the microphone is amplified in the microphone amplifier of Q6 and input to the ALC (Auto Level Control) amplifier of IC1. The ALC circuit prevents the received voice signal from being distorted when a large volume signal is input from the microphone. If an input signal level becomes beyond the previously set one, the circuit reduces the Amp. Gain in order not to fluctuate the output level by strong input. The LIMIT circuit clips strong signals that are leaked from ALC filtering. The transmitted voice signal output from pin (15) is input to the compressor from pin (18) and amplified. Then, it flows through the MUTE circuit and output to pin (20). This circuit controls the CPU when the signal is Low during calling and High during muting mode. The transmitted voice signal through the MUTE circuit is input to the HPF of pins (21) and (22), and sent to the Mixer circuit in IC1.

The Mixer circuit mixes the TX data from the CPU with the transmitted voice signal (however, Mic. Mute mode is activated during TX data transmission). Finally, the Mixer output flows through the LPF of 4 kHz cutoff frequency and it is output from pin (24), then sent to the RF modulator.



### 11.1.8. Low speed data

Low speed data receiving circuit is constructed with Low Pass Filter and Amplifier. Received low speed data is transmitted to first LPF IC6 pin (3) through IC1 (56) and amplified by Q15. Next is amplified cutting high tone pulse in the second LPF, and is transmitted from the output (7) to CPU pin (80).

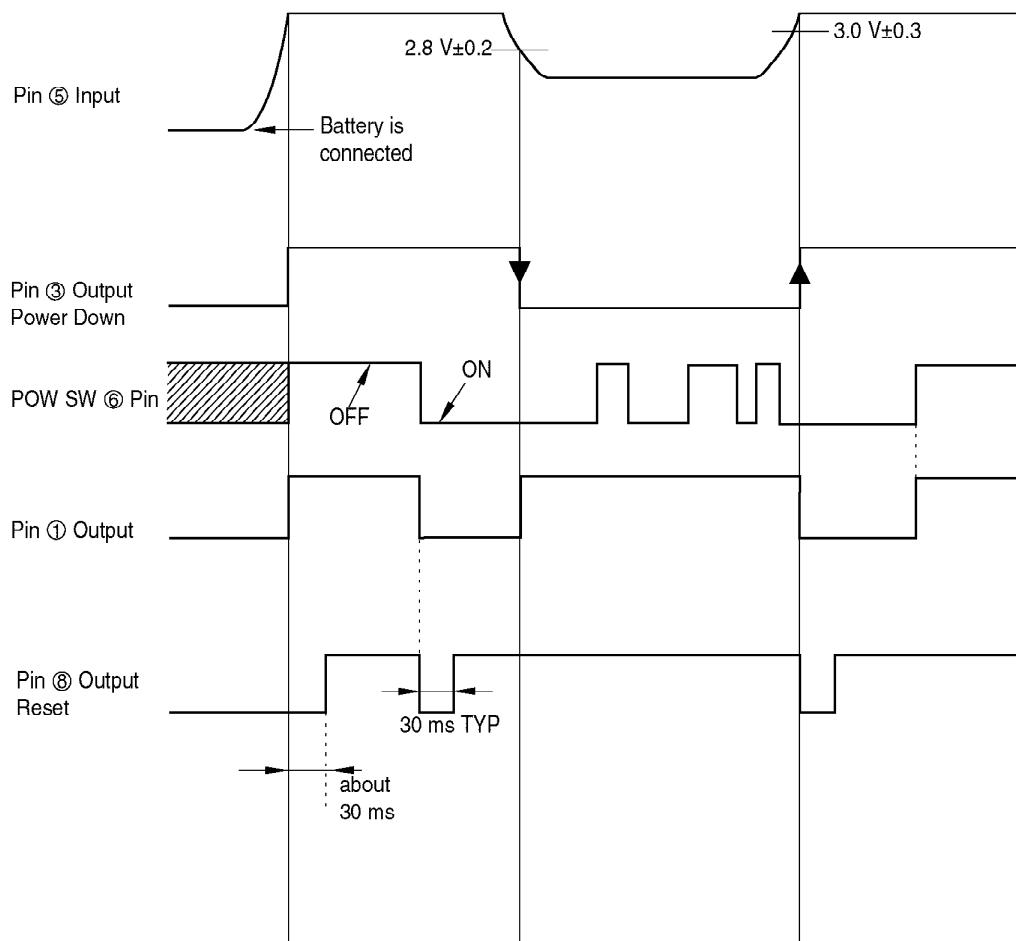
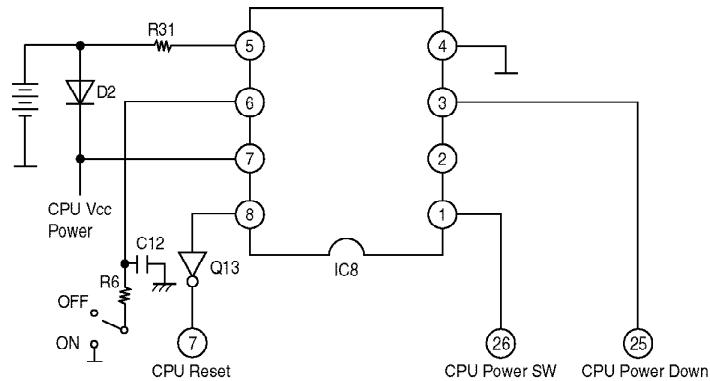


### 11.1.9. Reset circuit, power down circuit, ON/OFF circuit

IC8 detects RESET, POWER DOWN and POWER ON/OFF.

C12 is designed to avoid the power switch chattering.

R31 is used for Power Down voltage setting. The Power is down at approx. 2.8V.



### 11.1.10. Charging detection

If the portable unit is put on the charger to recharge it, the DC voltage appears on "TH" terminal of battery connector CN1.

"TH" terminal is used to detect battery temperature by using thermistor.

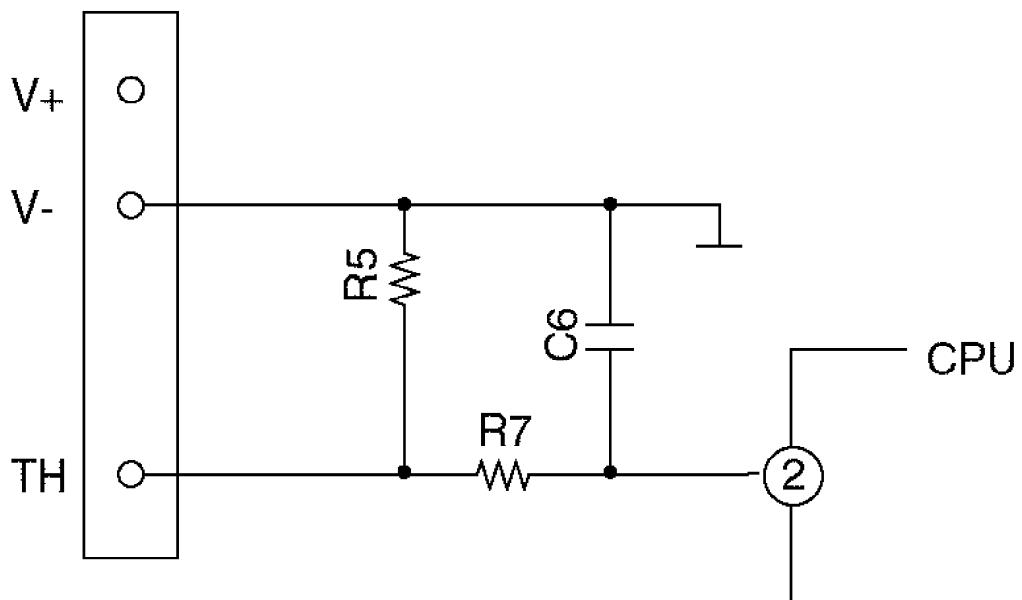
The battery temperature indicates the present charging quantity of battery.

The CPU detects the voltage of TH terminal via R7.

If voltage of "TH" terminal is over 0.8 volts, the portable unit is parked on charger.

If voltage is lower than 0.8 volts, the portable unit is not parked on charger.

## CN1 (battery terminal)



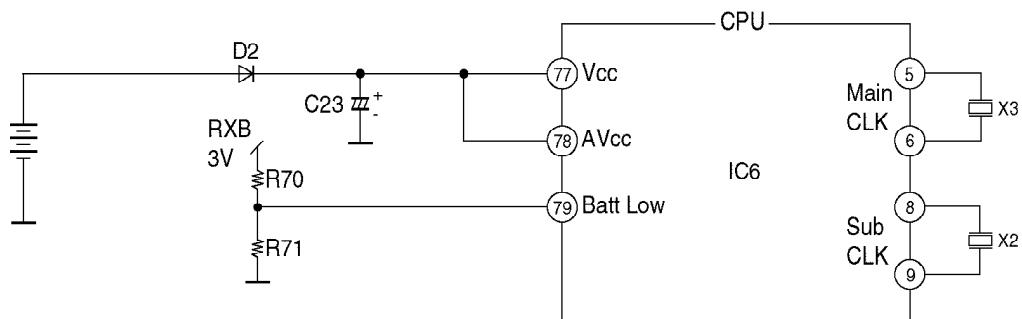
### 11.1.11. CPU power supply, low battery

The power is supplied to the CPU from the battery via D2.

The CPU detects that the battery is low by comparing the constant voltage of pin (79) with the battery voltage of pin (78).

In the standby mode, X2 of the subsidiary clock oscillates at 32.768 kHz.

In the operation mode, X3 of the main clock oscillates at 4 MHz.

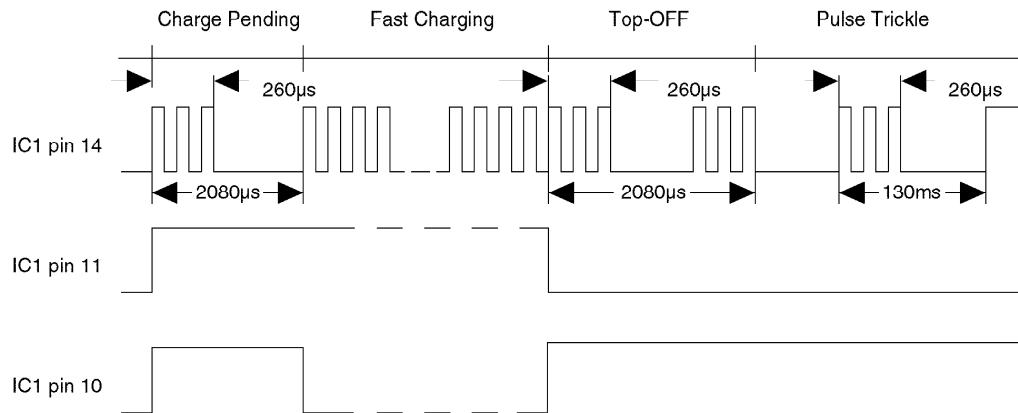


## 11.2. RF Unit Section

Refer to 15.2 RF Unit of Base Unit. (Common use to Base Unit)

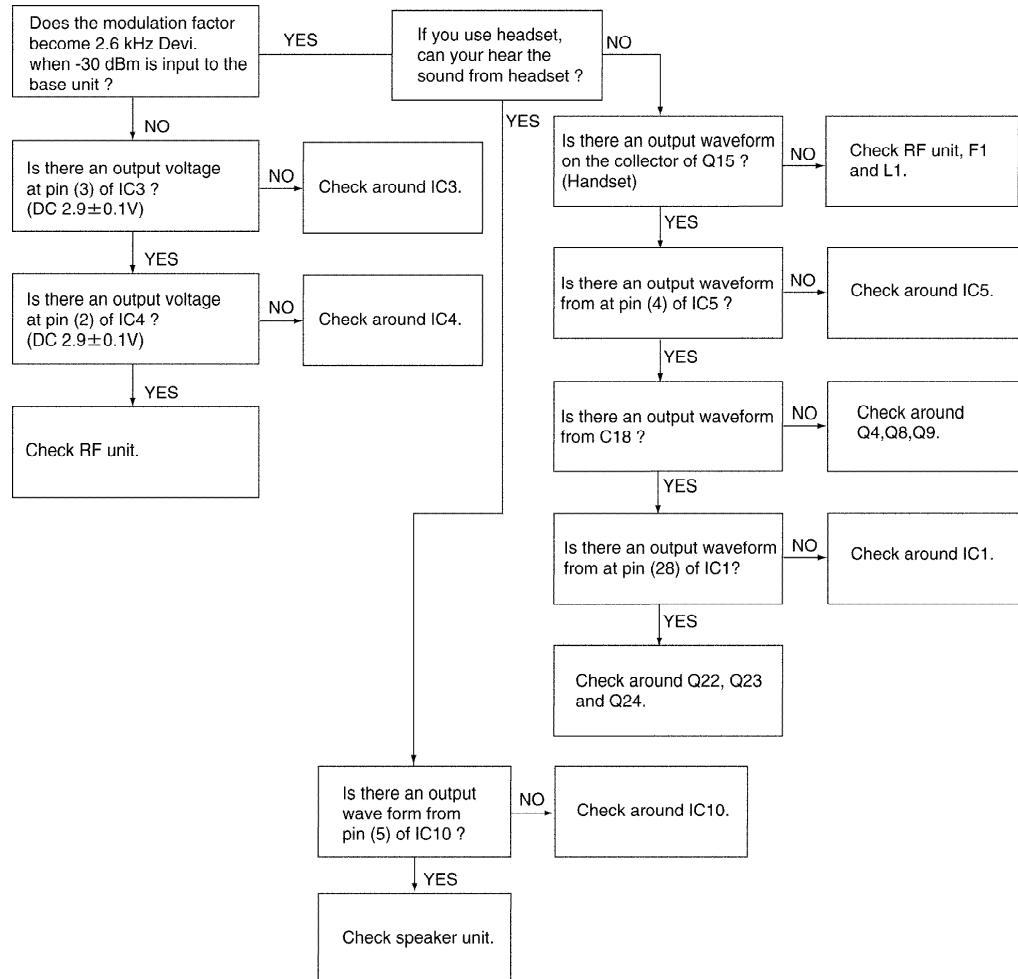
## 12. CIRCUIT OPERATION (KX-T7885WCH)

Charge Control Circuit IC1 is Charge Control IC and controls the charge current by controlling Q1 via Q2. IC1 pin 14 generates pulse to control the charge current, pulse pattern changes 3 patterns corresponding with charge conditions (refer to Fig. 1). IC1 pins 1-5, 16 are used for deciding charge conditions. D4 and D5 are LED's to indicate charger condition. These LED's are controlled by IC1 pins 10 and 11 (refer to Fig. 1). IC1 pin 7 monitors the voltage corresponding to battery temperature. The voltage which shows the abnormal temperatures are decided by the voltage of IC1 pin 6 and 13. IC1 pin 8 monitors the battery voltage. IC1 stops the first charge when it recognizes abnormal value of delta temperature/delta time, delta voltage, maximum temperature, maximum voltage and maximum time (appox. 77minutes).

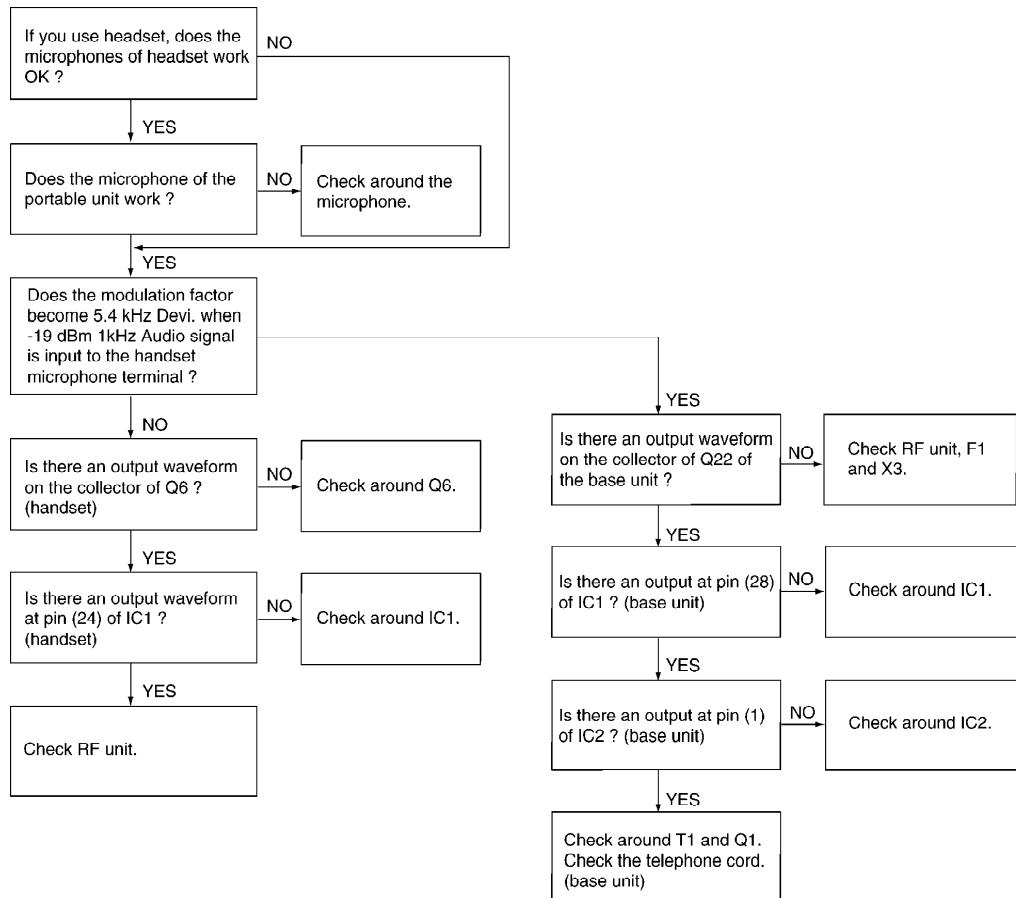


## 13. TROUBLESHOOTING GUIDE

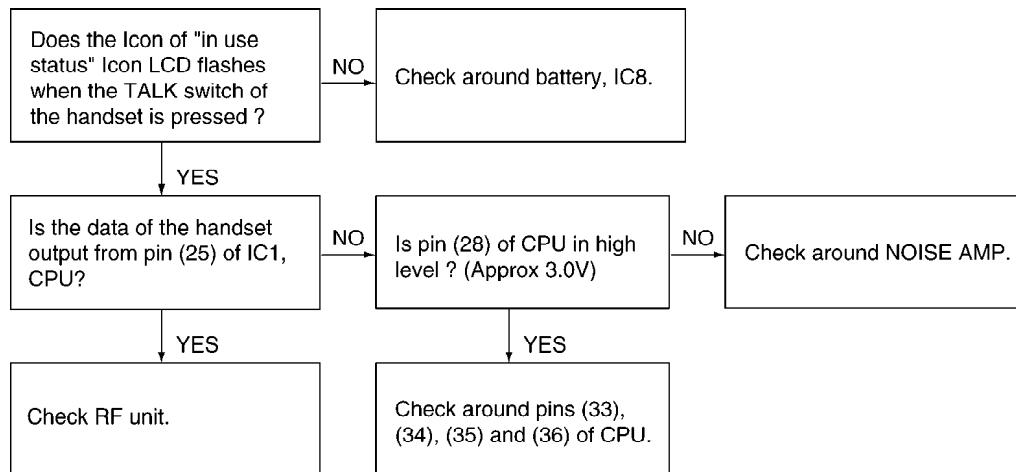
### 13.1. No Voice Reception



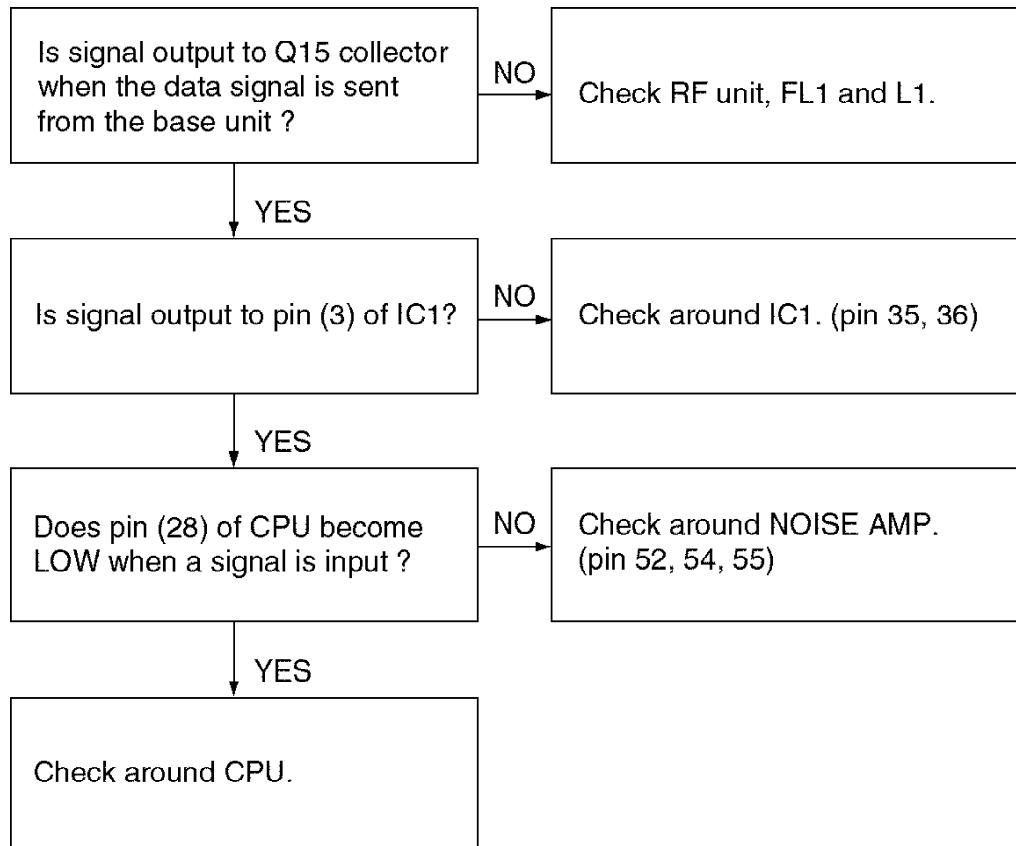
### 13.2. No Voice Transmission



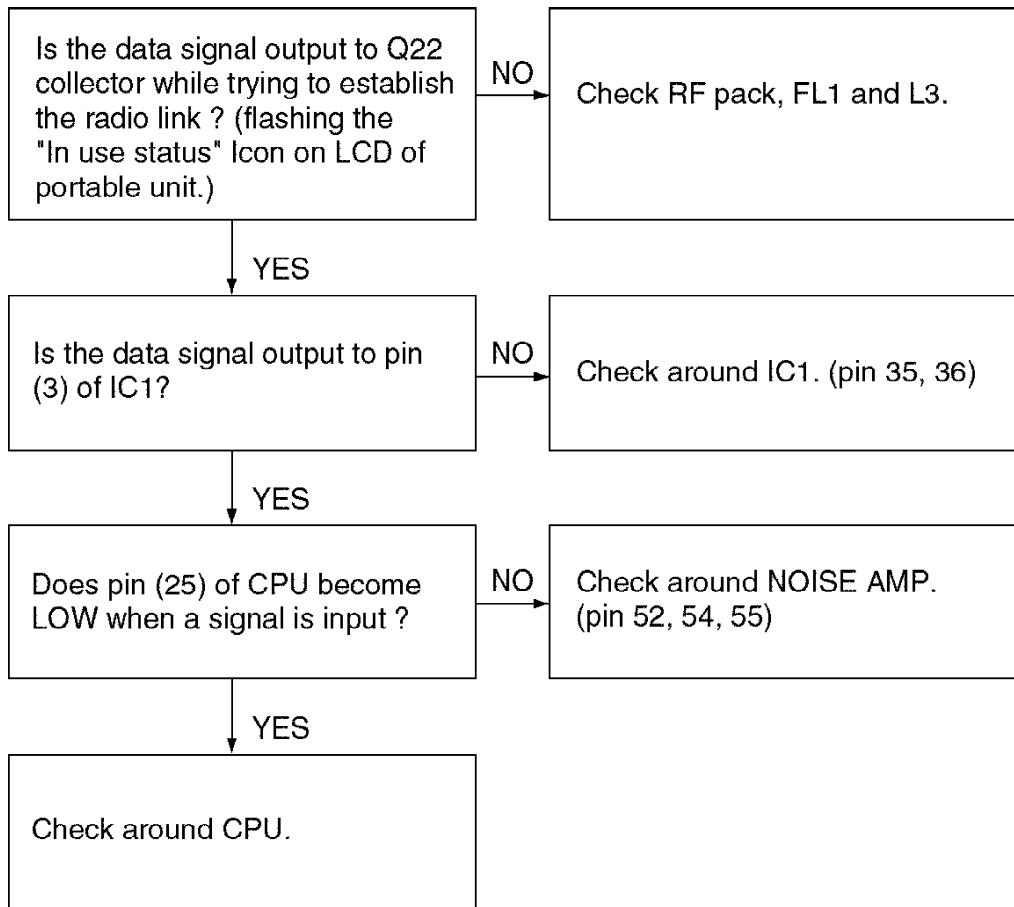
### 13.3. No Link (Handset TX)



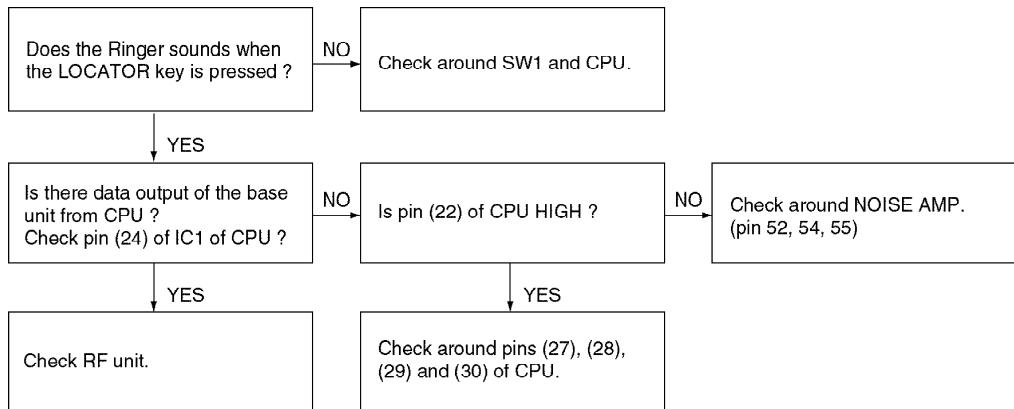
### 13.4. No Link (Handset RX)



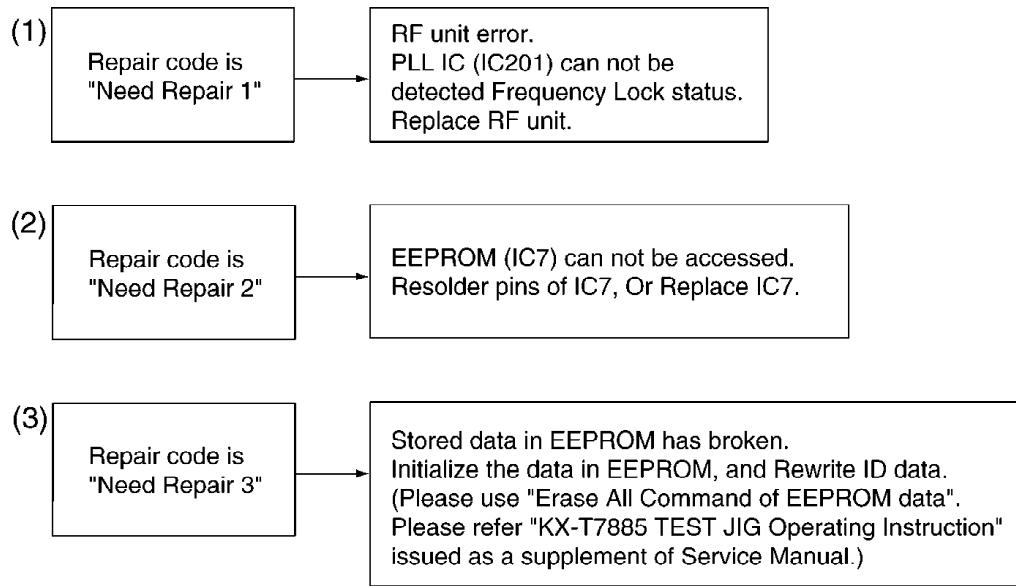
### 13.5. No Link (Base unit RX)



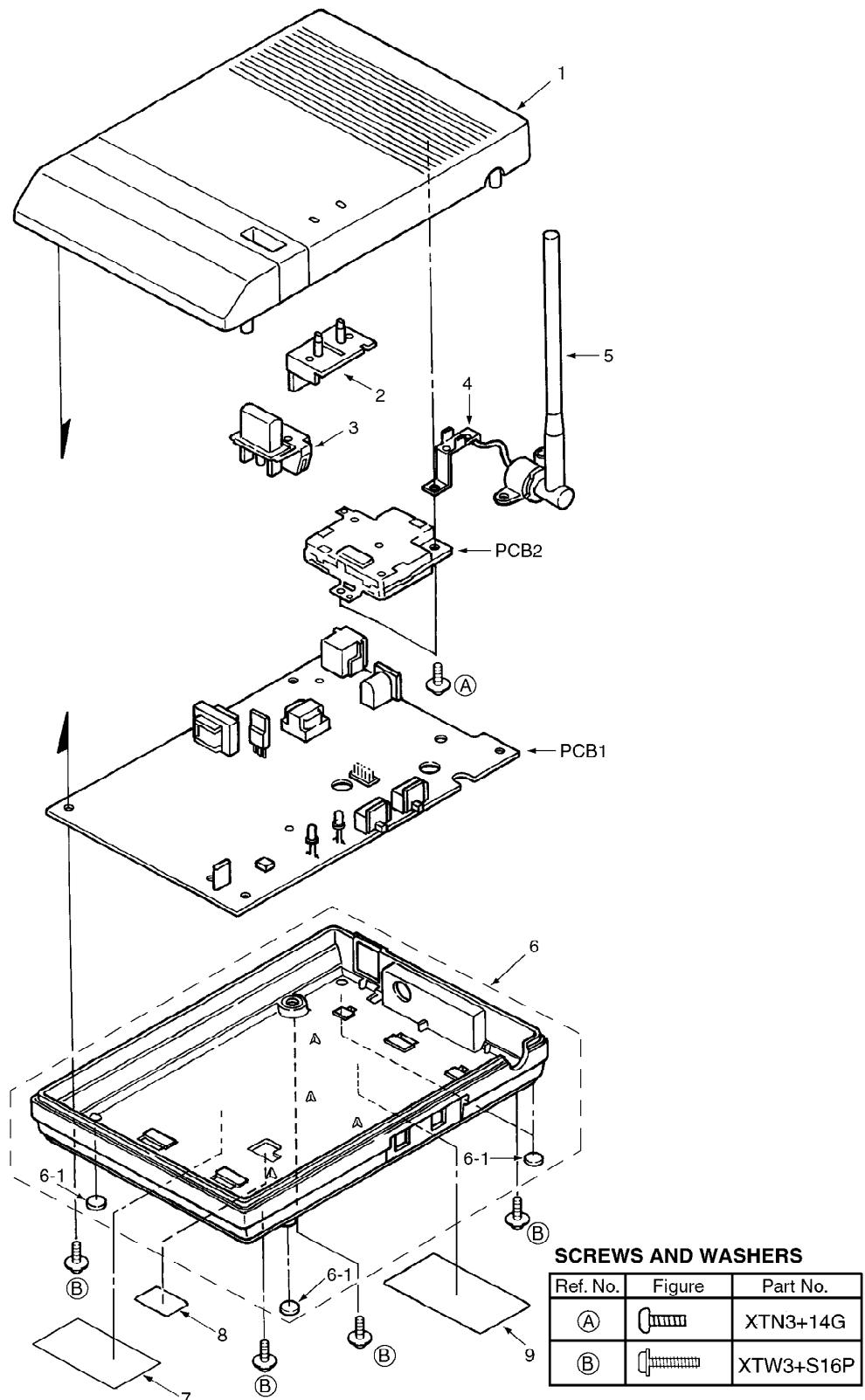
### 13.6. No Link (Base unit TX)



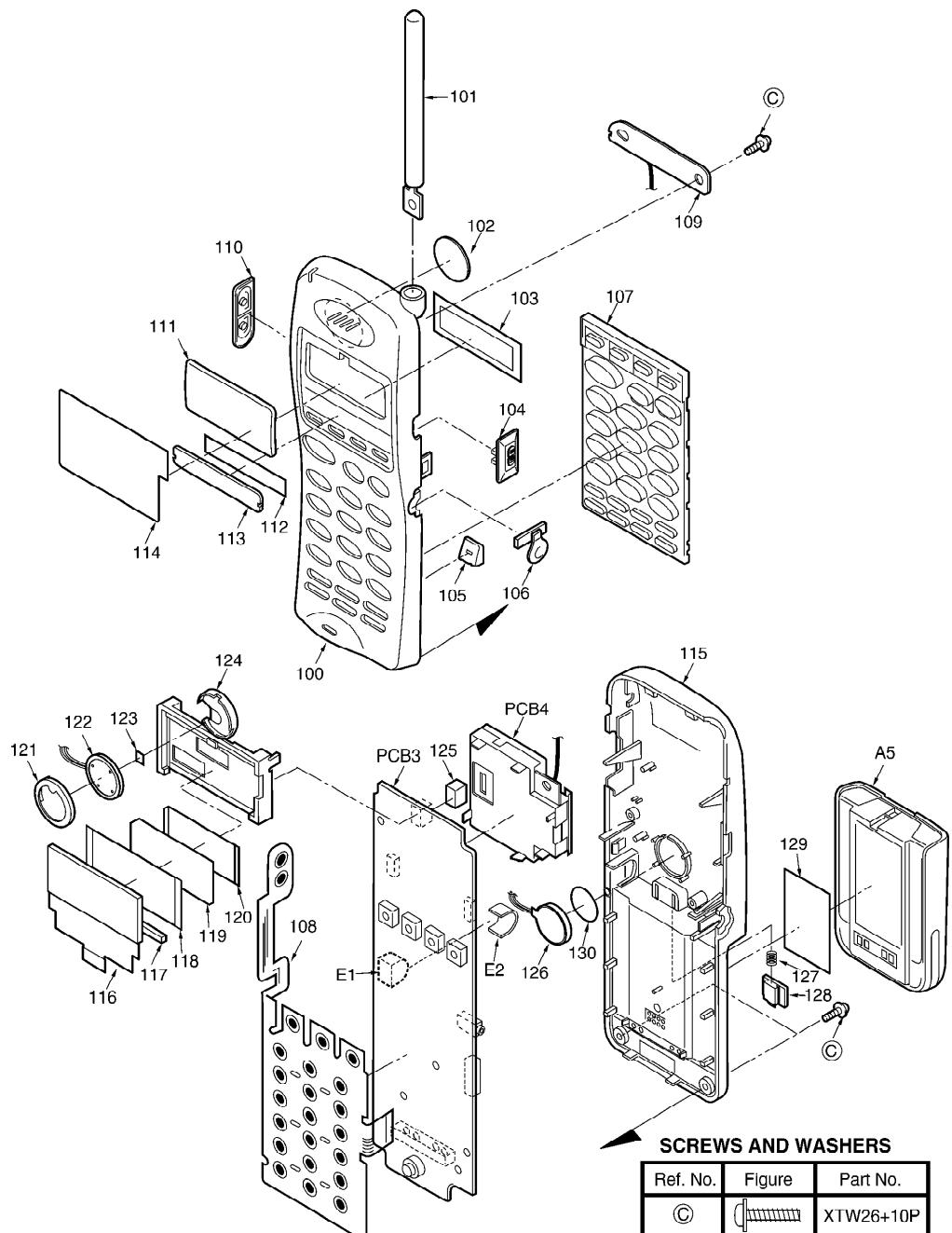
### 13.7. Repair Code Appears on LCD (Handset)



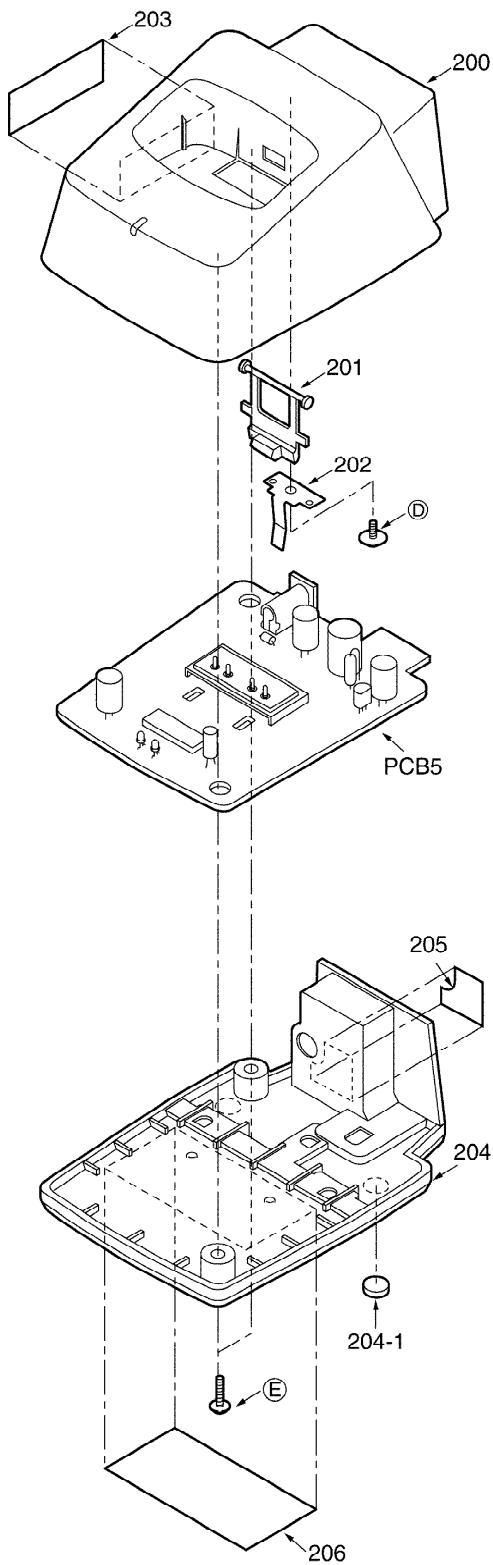
## 14. CABINET AND ELECTRICAL PARTS LOCATIONS (KX-T7885WH)



## 15. CABINET AND ELECTRICAL PARTS LOCATIONS (KX-T7885WR)



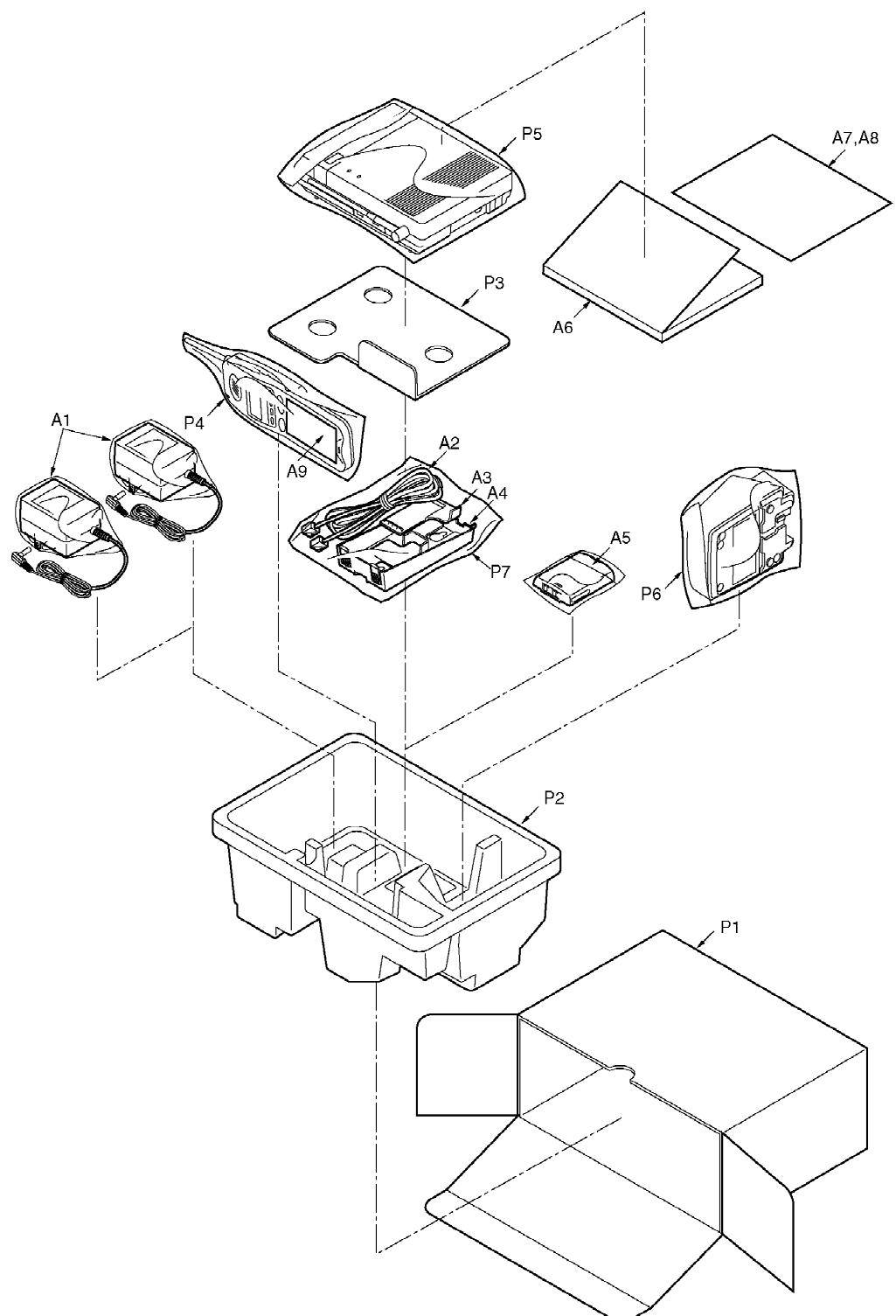
## 16. CABINET AND ELECTRICAL PARTS LOCATIONS (KX-T7885WCH)



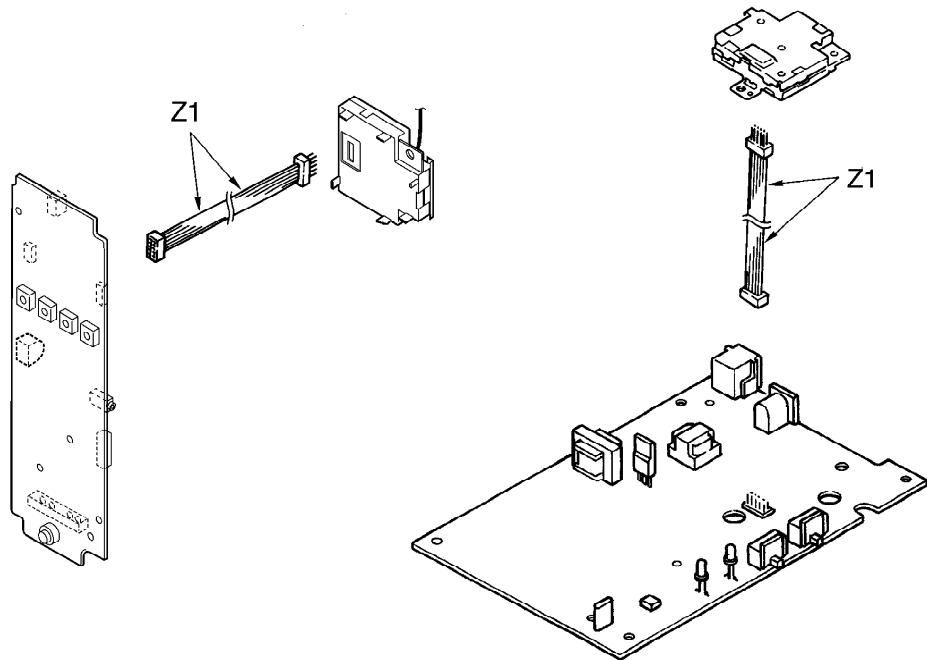
#### SCREWS AND WASHERS

Ref. No.	Figure	Part No.
④		XTW3+W6F
⑤		XTW3+S14P

## 17. ACCESSORIES AND PACKING MATERIALS



## 18. FIXTURE AND TOOL



## 19. REPLACEMENT PARTS LIST

Note:

### 1. RTL (Retention Time Limited)

The marking (RTL) indicates that the Retention Time is limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

### 2. Important safety notice

Components identified by the mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

### 3. The S mark indicates service standard parts and may differ from production parts.

### 4. RESISTORS & CAPACITORS

Unless otherwise specified;

**All resistors are in ohms (  $\Omega$  ), K=1000  $\Omega$  , M=1000k  $\Omega$**

**All capacitors are in MICRO FARADS (  $\mu F$  ), P=  $\mu$  (  $\mu F$  )**

### \*Type & Wattage of Resistor

Type				
ERC:Solid	ERX:Metal Film	PQ4R:Carbon		
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resistor		
PORD:Carbon	ER0:Metal Film	ERF:Cement Resistor		
Wattage				
10,16:1/8W	14,25:1/4W	12:1/2W		
	1:1W	2:2W		
		3:3W		
*Type & Voltage of Capacitor				
Type				
ECFD:Semiconductor	ECCD,ECKD,ECBT,PQCBC:Ceramic			
ECQS:Styrol	ECQE,ECQV,ECQG:Polyester			
POCUV:Chip	ECEA,ECSZ:Electlytic			
ECQMS:Mica	ECQP:Polypropylene			
Voltage				
ECQ Type	ECQG ECQV Type	ECSZ Type	Others	
1H:50V	05:50V	0F:3.15V	0J :6.3V	1V :35V
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V
2E:250V	2:200V	1V:35V	1C :16V	1J :63V
2H:500V		0J:6.3V	1E,25:25V	2A :100V

## 19.1. KX-T7885WH (Base Unit)

### (CABINET AND ELECTRICAL PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
1	PQKM10124U3	UPPER CABINET	
2	PSHR1044Z	FLAME, LED	
3	PSBC1004Z3	KEY, LOCATOR	
4	PSMC1017Z	FLAME, ANTENNA	
5	N1BZA1Y00003	ANTENNA	
6	PSYF1006Z3	LOWER CABINET ASS'Y	
6-1	PQHG10203Z	FOOT RUBBER,LEGS	
7	PSQT1643Z	LABEL, FCC CAUTION	
8	PQHR5397Z	ID COVER	
9	PSGT2179Z	NAME PLATE	

### (MAIN BOARD PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
<b>PCB1</b>	<b>PSWP1T7885H</b>	<b>MAIN BOARD ASS'Y (RTL)</b>	
		(ICS)	
IC1	AN6159FA	IC	
IC2	PQVIJM4560M	IC	
IC3	AN7805F	IC	
IC4	PSWIT7885H	IC	
IC5	PQVITC7W04FL	IC	
IC6	PQVI93LC46XI	IC	S
IC7	PQVIPD4011G	IC	
IC8	MN150409KRP	IC	
		(TRANSISTORS)	
Q1	2SA1625	TRANSISTOR(SI)	
Q10	2SC4116	TRANSISTOR(SI)	
Q11	2SD2137	TRANSISTOR(SI)	
Q12	2SC4116	TRANSISTOR(SI)	
Q14	2SC4116	TRANSISTOR(SI)	
Q15	2SC4116	TRANSISTOR(SI)	
Q16	2SB1218A	TRANSISTOR(SI)	
Q17	2SC4116	TRANSISTOR(SI)	
Q20	PQVTDTB123E	TRANSISTOR(SI)	
Q21	PQVTDTB123E	TRANSISTOR(SI)	
Q22	2SC4116	TRANSISTOR(SI)	
		(DIODES)	
D1	PQVDS1ZB60F1	DIODE(SI)	
D2	MA8110L	DIODE(SI)	
D3	PQVDS1ZB60F1	DIODE(SI)	
D10	LN31GCPHV	DIODE(SI)	
D11	LN21RCPHV	DIODE(SI)	
D14	1SS119	DIODE(SI)	
D15	1SS119	DIODE(SI)	
D16	MA8030H	DIODE(SI)	
D17	MA110	DIODE(SI)	
D18	MA110	DIODE(SI)	
D19	MA110	DIODE(SI)	
D20	MA110	DIODE(SI)	
		(CAPACITORS)	
C1	ECQE2224KF	0.22	
C2	ECKD2H681KB	680P	S
C3	ECKD2H681KB	680P	S
C4	ECEA1HU3R3	3.3	
C10	PQCUV1E104MD	0.1	S
C11	ECUV1C563KB	0.056	
C12	ECUV1C473KBV	0.047	
C15	ECUV1H331JCV	330P	
C16	PQCUV1E104MD	0.1	S

Ref. No.	Part No.	Part Name & Description	Remarks
C17	ECEA1HU220	22	S
C18	PQCUV1E104MD	0.1	S
C19	ECEA1HU220	22	S
C20	ECEA1EU221	220	
C21	ECEA1CGE470	47	
C22	PQCUV1H105JC	1	S
C23	ECEA1CU331	330	
C25	ECEA1CU471	470	
C26	EECFME5R5473	0.047	
C27	PQCUV1E104MD	0.1	S
C28	ECEA1CKS100	10	S
C30	ECEA1HU2R2	2.2	
C31	ECUV1H151JC	150P	
C37	PQCUV1E104MD	0.1	S
C41	ECEA0JKS470	47	
C42	ECEA1CKS100	10	S
C43	ECUV1H223KBV	0.022	S
C44	PQCUV1H105JC	1	S
C45	ECUV1C104KBV	0.1	S
C46	ECEA1CKS470	47	
C47	ECUV1C104KBV	0.1	S
C48	ECUV1C104KBV	0.1	S
C49	PQCUV1H105JC	1	S
C50	ECUV1H102KBV	0.001	
C51	ECUV1H101JCV	100P	
C52	ECUV1H473MDV	0.047	S
C53	ECUV1C273KBV	0.027	
C54	PQCUV1H102J	0.001	
C55	ECUV1H180JCV	18P	
C56	ECUV1H090DCV	9P	
C57	ECEA0JU471	470	
C58	PQCUV1E104MD	0.1	S
C59	PQCUV1E104MD	0.1	S
C60	PQCUV1E104MD	0.1	S
C61	ECUV1H333KDV	0.033	S
C62	ECUV1H333KDV	0.033	S
C63	PQCUV1H151JC	1	S
C64	ECEA1CKS100	10	S
C65	ECEA1HKS4R7	4.7	
C66	ECUV1H562KBV	0.0056	
C67	PQCUV1H153KB	0.015	
C69	ECUV1C104KBV	0.1	S
C70	PQCUV1E104MD	0.1	S
C71	ECUV1H103KBV	0.01	
C72	ECUV1H223KBV	0.022	S
C73	ECUV1H333KDV	0.033	S
C74	ECEA1HKS4R7	4.7	

Ref. No.	Part No.	Part Name & Description	Remarks
C75	ECEA1CKS100	10	S
C76	ECEA1HKS4R7	4.7	
C77	PQCUV1E104MD	0.1	S
C78	ECUV1H472KBV	0.0047	
C80	ECUV1C104KBV	0.1	S
C84	ECUV1H330JCV	33P	
C85	ECUV1H330JCV	33P	
C86	ECEA1AU222	2200	S
C87	ECEA1EU470	47	S
C88	ECEA0JU471	470	
C89	ECUV1H101JCV	100P	
C90	ECUV1H101JCV	100P	
C91	ECUV1H101JCV	100P	
C92	ECUV1H101JCV	100P	
C93	ECUV1H101JCV	100P	
C94	ECUV1H101JCV	100P	
C95	ECUV1H101JCV	100P	
C96	ECUV1H101JCV	100P	
C99	PQCUV1H105JC	1	S
C100	ECEA1HU220	22	S
C102	ECUV1H821KBV	820P	
C105	PQCUV1H105JC	1	S
C106	ECUV1H102KBV	0.001	
C107	PQCUV1E104MD	0.1	S
C108	PQCUV1H223KB	0.022	
C109	ECUV1H180JCV	18P	
C110	ECUV1H180JCV	18P	
C111	ECEA0JU471	470	
C113	ECUV1H103KBV	0.01	
C116	PQCUV1H105JC	1	S
C198	ECEA1HU100	10	S
C199	PQCUV1H105JC	1	S
C201	ECUV1C104KBV	0.1	S
C202	ECUV1H470JCV	47P	
C203	ECUV1C104KBV	0.1	S
C205	PQCUV1H101JC	100P	
C206	PQCUV1C154KB	0.15	
C210	ECUV1H471JCV	470P	
C250	ECUV1C104KBV	0.1	S
C251	PQCUV1H105JC	1	S
C253	PQCUV1H105JC	1	S
C255	PQCUV1H105JC	1	S
C256	PQCUV1H105JC	1	S
C257	PQCUV1H105JC	1	S
C258	PQCUV1H103KB	0.01	S
C259	PQCUV1H103KB	0.01	S

Ref. No.	Part No.	Part Name & Description	Remarks
C260	PQCUV1H105JC	1	S
C270	PQCUV1H102J	0.001	
		(RESISTORS)	
R1	ERDS2TJ473	47k	
R2	ERDS2TJ104	100k	
R3	ERDS2TJ472	4.7k	
R4	ERDS2TJ103	10k	
R8	PQ4R10XJ681	680	
R11	PQ4R10XJ000	0	
R12	ERDS2TJ154	150k	
R13	PQ4R10XJ183	18k	
R14	ERJ3GEYJ223	22k	
R15	ERJ3GEYJ332	3.3k	
R16	PQ4R10XJ154	150k	
R17	ERDS1TJ331	330	
R18	PQ4R10XJ274	270k	
R19	ERJ3GEYJ333	33k	
R20	ERJ3GEYJ104	100k	
R21	ERJ3GEYJ823	82k	
R22	ERJ3GEYJ100	10	
R23	PQ4R10XJ332	3.3k	
R24	PQ4R10XJ561	560	
R26	PQ4R10XJ000	0	
R28	ERJ3GEYJ154	150k	
R30	PQ4R10XJ472	4.7k	
R31	PQ4R10XJ472	4.7k	
R32	PQ4R10XJ101	100	
R33	PQ4R10XJ222	2.2k	
R34	PQ4R10XJ472	4.7k	
R35	PQ4R10XJ102	1k	
R36	PQ4R10XJ103	10k	
R37	ERJ3GEYJ103	10k	
R38	ERJ3GEYJ103	10k	
R40	ERJ3GEYJ682	6.8k	
R45	ERJ3GEYJ104	100k	
R47	ERJ3GEYJ103	10k	
R48	ERJ3GEYJ473	47k	
R49	ERJ3GEYJ103	10k	
R50	ERJ3GEYJ473	47k	
R52	ERJ3GEYJ682	6.8k	
R58	ERJ3GEYJ274	270k	
R59	ERJ3GEYJ272	2.7k	
R60	ERJ3GEYJ102	1k	
R61	ERJ3GEYJ223	22k	
R62	ERJ3GEYJ223	22k	

Ref. No.	Part No.	Part Name & Description	Remarks
R63	ERJ3GEYJ104	100k	
R64	PQ4R10XJ104	100k	
R65	ERJ3GEYJ184	180k	
R66	ERJ3GEYJ105	1M	
R67	ERJ3GEYJ185	1.8M	
R69	ERJ3GEYJ152	1.5k	
R70	ERJ3GEYJ223	22k	
R71	ERJ3GEYJ823	82k	
R72	ERJ3GEYJ393	39k	
R73	ERJ3GEYJ103	10k	
R74	ERJ3GEYJ333	33k	
R75	ERJ3GEYJ103	10k	
R76	ERJ3GEYJ392	3.9k	
R77	ERJ3GEYJ103	10k	
R78	ERJ3GEYJ273	27k	
R79	ERJ3GEYJ103	10k	
R80	ERJ3GEY0R00	0	
R82	ERJ3GEYJ823	82k	
R83	ERJ3GEYJ472	4.7k	
R84	ERJ3GEYJ123	12k	
R85	ERJ3GEYJ183	18k	
R86	ERJ3GEYJ564	560k	
R87	ERJ3GEYJ103	10k	
R88	ERJ3GEYJ103	10k	
R89	ERJ3GEYJ153	15k	
R90	ERJ3GEYJ153	15k	
R93	ERJ3GEYJ105	1M	
R95	ERJ3GEYJ681	680	
R97	ERJ3GEYJ102	1k	
R98	ERJ3GEYJ105	1M	
R102	ERJ3GEYJ100	10	
R104	ERJ3GEYJ104	100k	
R105	ERJ3GEYJ103	10k	
R106	ERJ3GEYJ473	47k	
R107	ERJ3GEYJ822	8.2k	
R108	ERJ3GEYJ223	22k	
R109	ERJ3GEYJ562	5.6k	
R110	ERJ3GEYJ822	8.2k	
R111	ERJ3GEYJ562	5.6k	
R112	ERJ3GEYJ100	10	
R113	ERJ3GEYJ100	10	
R114	ERJ3GEYJ100	10	
R115	ERJ3GEYJ103	10k	
R116	ERJ3GEYJ103	10k	
R118	ERJ3GEYJ223	22k	
R119	ERJ3GEYJ104	100k	
R120	ERJ3GEYJ103	10k	
R125	ERJ3GEY0R00	0	

Ref. No.	Part No.	Part Name & Description	Remarks
R126	ERJ3GEYJ100	10	
R127	ERJ3GEYJ100	10	
R128	ERJ3GEYJ100	10	
R129	ERJ3GEYJ100	10	
R130	ERJ3GEYJ100	10	
R131	ERJ3GEYJ473	47k	
R134	ERJ3GEYJ104	100k	
R135	ERJ3GEYJ392	3.9k	
R136	ERJ3GEYJ101	100	
R137	ERJ3GEYJ153	15k	
R138	ERJ3GEYJ472	4.7k	
R140	ERJ3GEYJ473	47k	
R141	PQ4R10XJ000	0	
R142	ERJ3GEY0R00	0	
R143	ERJ3GEY0R00	0	
R146	ERJ3GEYJ683	68k	
R147	ERJ3GEYJ223	22k	
R149	ERJ3GEYJ563	56k	
R150	ERJ3GEYJ474	470k	
R153	ERJ3GEYJ104	100k	
R154	ERJ3GEYJ332	3.3k	
R155	ERJ3GEYJ473	47k	
R160	ERJ3GEYJ103	10k	
R161	ERJ3GEYJ124	120k	
R162	ERJ3GEYJ563	56k	
R163	ERJ3GEYJ333	33k	
R164	ERJ3GEYJ153	15k	
R165	ERJ3GEYJ822	8.2k	
R166	ERJ3GEYJ392	3.9k	
R167	ERJ3GEYJ222	2.2k	
R168	ERJ3GEYJ102	1k	
R169	ERJ3GEYJ683	68k	
R170	ERJ3GEYJ274	270k	
R180	ERJ3GEYJ105	1M	
R190	ERJ3GEYJ100	10	
R191	ERJ3GEYJ153	15k	
R193	PQ4R10XJ681	680	
R194	ERJ3GEYJ682	6.8k	
R197	ERDS2TJ122	1.2k	
R210	PQ4R10XJ000	0	
R211	ERJ3GEY0R00	0	
R310	PQ4R10XJ221	220	
R311	PQ4R10XJ221	220	
R312	ERDS2TJ122	1.2k	

Ref. No.	Part No.	Part Name & Description	Remarks
R500	ERJ3GEY0R00	0	
D12	PQ4R10XJ000	0	
D13	PQ4R10XJ000	0	
J1	ERJ3GEY0R00	0	
J2	ERJ3GEY0R00	0	
J3	ERJ3GEY0R00	0	
J4	PQ4R18XJ000	0	
J5	ERJ3GEY0R00	0	
J6	ERJ3GEY0R00	0	
J7	ERJ3GEY0R00	0	
J8	PQ4R18XJ000	0	
J9	ERJ3GEY0R00	0	
J10	ERJ3GEY0R00	0	
J11	PQ4R18XJ000	0	
J12	ERJ3GEY0R00	0	
J57	ERJ3GEY0R00	0	
J69	ERJ3GEY0R00	0	
JA	ERJ3GEY0R00	0	
JB	ERJ3GEY0R00	0	
JD	ERJ3GEY0R00	0	
JM1	ERJ3GEY0R00	0	
L100	PQ4R10XJ000	0	
		(CONNECTOR)	
CN1	PQJP10B01Z	CONNECTOR	10P
		(JACKS)	
JK1	PSJJ1T001Z	JACK	
DC JACK	PSJJ1B002Z	JACK	
		(COILS)	
L1	ELEV330KA	COIL	
L2	ELEV330KA	COIL	
		(CERAMIC FILTERS)	
FL1	PQVFCFT455E1	CERAMIC FILTER	
L3	PQVFCDBM455M	CERAMIC FILTER	
		(PHOTO ELECTRIC TRANSDUCERS)	
PC1	PQVIPC814K	PHOTO ELECTRIC TRANSDUCER	▲
PC2	PQVITLP627	PHOTO ELECTRIC TRANSDUCER	▲
		(THERMISTOR)	
PO1	PQRPAR390N	THERMISTOR	
		(VARISTOR)	
SA2	PQVDRA311PT3	VARISTOR(SURGE ABSORBER)	▲

Ref. No.	Part No.	Part Name & Description	Remarks
SA3	PQVDRA311PT3	VARISTOR(SURGE ABSORBER)	▲
		(SWITCHES)	
SW1	EVQ21005G	SPECIAL SWITCH	
SW2	PQSS2A27Z	SLIDE SWITCH	
SW3	PQSS2A27Z	SLIDE SWITCH	
		(TRANSFORMERS)	
T1	PQLT8F3A	TRANSFORMER	▲
T2	ETE13K79AY	TRANSFORMER	
		(VARIABLE RESISTORS)	
VR1	EVNDXAA03B54	VARIABLE RESISTOR 50K	
VR3	EVNDXAA03B14	VARIABLE RESISTOR 10K	
VR4	EVNDXAA03B54	VARIABLE RESISTOR 50K	
		(CRYSTAL OSCILLATORS)	
X1	PQVCK7952N4Z	CRYSTAL OSCILLATOR	
X3	PQVCJ2094N4R	CRYSTAL OSCILLATOR	
X4	PQVCJ3581N9Z	CRYSTAL OSCILLATOR	
		(VARISTORS)	
ZNR1	PQVDNV039D03	VARISTOR	
ZNR2	PQVDNV039D03	VARISTOR	

### (RF UNIT PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
<b>PCB2</b>	PSWU1T7885H1	RF BOARD ASS'Y (RTL)	
		(ICS)	
IC201	PQVIM64084GP	IC	
IC202	PQVIPC2746TE	IC	
		(TRANSISTORS)	
Q201	2SC4099NT106	TRANSISTOR(SI)	
Q202	2SC4099NT106	TRANSISTOR(SI)	
Q204	2SC3356R24	TRANSISTOR(SI)	
Q205	2SC4571R76	TRANSISTOR(SI)	S
Q206	2SC4226R24	TRANSISTOR(SI)	
Q207	2SC5086	TRANSISTOR(SI)	
Q208	2SC5086	TRANSISTOR(SI)	
Q209	2SC5086	TRANSISTOR(SI)	
Q210	2SC5086	TRANSISTOR(SI)	
		(DIODES)	
D201	PQVD1SV276	DIODE(SI)	
D202	PQVD1SV276	DIODE(SI)	
D203	MA110	DIODE(SI)	
		(CONNECTOR)	
CN200	PQJS10A82Z	CONNECTOR (10P)	

Ref. No.	Part No.	Part Name & Description	Remarks
		<b>(CAPACITORS)</b>	
C201	ECUE1E102KBQ	0.001	
C202	ECUV1H101JCV	100P	
C203	ECUE1H2R5BUQ	2.5	
C204	ECUE1H150JCQ	15P	
C205	ECST0JX226	22	
C206	ECUE1H030CCQ	3P	
C207	ECUV1C104KBV	0.1	S
C208	ECUE1H040CCQ	4P	
C209	ECUE1H030CCQ	3P	
C210	ECUV1H332KBV	0.0033	
C211	ECUV1H332KBV	0.0033	
C212	ECUV1C104KBV	0.1	S
C213	ECUV1H102KBV	0.001	
C215	ECUE1E102KBQ	0.001	
C216	ECUE1H020CCQ	2P	
C217	ECUV1H101JCV	100P	
C218	ECUV1H060DCV	6P	
C219	ECUE1H180JCQ	18P	
C220	ECUE1C103KBQ	0.01	
C223	ECUV1H102KBV	0.001	
C224	ECUE1H030CCQ	3P	
C225	ECUV1H040CCV	4P	
C226	ECUE1H020CCQ	2P	
C227	ECUE1H040CCQ	4P	
C229	ECUV1H050CCV	5P	
C230	ECUV1H102KBV	0.001	
C231	ECUV1H101JCV	100P	
C232	ECUV1H040CCV	4P	
C233	ECUV1H100DCV	10P	
C234	ECUE1E102KBQ	0.001	
C235	ECUE1H040CCQ	4P	
C236	ECUE1H040CCQ	4P	
C237	ECUV1H020CCV	2P	
C238	F1H1H360A768	36P	
C239	ECST0JX226	22	
C240	ECUV1H102KBV	0.001	
C241	ECUV1C104KBV	0.1	S
C242	ECUE1H030CCQ	3P	
C243	ECUE1H030CCQ	3P	
C244	ECUE1H030CCQ	3P	
C245	ECUV1H430JGV	43P	
C246	ECUE1E102KBQ	0.001	
C247	ECUV1H150JGV	15P	
C248	ECUE1H2R5BUQ	2.5	
C249	ECUV1H102KBV	0.001	
C250	ECUV1C224KB	0.22	
C251	ECUV1H562KBV	0.0056	
C252	ECUV1H562KBV	0.0056	

Ref. No.	Part No.	Part Name & Description	Remarks
C253	ECST0JX226	22	
C254	ECUV1H103KBV	0.01	
C255	ECUV1H103KBV	0.01	
C256	ECUV1H330JCV	33P	
C257	ECUV1H330JCV	33P	
C258	ECUV1H330JCV	33P	
C259	ECUV1H101JCV	100P	
C260	ECUV1H020CCV	2P	
C261	ECUE1H150JCQ	15P	
C262	ECUV1H010CCV	1P	
C263	ECUE1E102KBQ	0.001	
C264	ECUV1H102KBV	0.001	
C265	ECUV1H040CCV	4P	
C266	ECUV1H100DCV	10P	
		(RESISTORS)	
R201	ERJ2GEJ222	2.2k	
R202	ERJ2GEJ151	150	
R204	ERJ2GEJ182	1.8k	
R205	ERJ3GEYJ153	15k	
R206	ERJ3GEYJ153	15k	
R207	ERJ3GEYJ333	33k	
R208	ERJ3GEYJ220	22	
R209	ERJ3GEYJ470	47	
R210	ERJ3GEYJ102	1k	
R211	ERJ3GEYJ472	4.7k	
R212	ERJ3GEYJ104	100k	
R213	ERJ3GEYJ152	1.5k	
R214	ERJ2GEJ561	560	
R215	ERJ3GEYJ470	47	
R216	ERJ3GEYJ104	100k	
R219	ERJ3GEYJ100	10	
R220	ERJ3GEYJ153	15k	
R221	ERJ3GEYJ683	68k	
R222	ERJ3GEYJ470	47	
R223	ERJ3GEYJ470	47	
R224	ERJ2GEJ182	1.8k	
R226	ERJ3GEYJ220	22	
R227	ERJ3GEYJ473	47k	
R229	ERJ2GEJ821	820	
R230	ERJ3GEYJ333	33k	
R231	ERJ3GEYJ153	15k	
R232	ERJ3GEYJ153	15k	
R233	ERJ3GEYJ681	680	
R236	ERJ2GEJ821	820	
R237	ERJ3GEYJ471	470	
R239	ERJ2GEJ682	6.8k	
R240	ERJ2GEJ682	6.8k	
R241	ERJ2GEJ271	270	

Ref. No.	Part No.	Part Name & Description	Remarks
R242	ERJ2GEJ682	6.8k	
R243	ERJ2GEJ682	6.8k	
R244	ERJ2GEJ271	270	
J201	ERJ3GEY0R00	0	
J202	PQ4R18XJ000	0	
J203	ERJWYJ000	0	
		(COILS)	
L201	MQLRE6N8JF	COIL	
L202	PQLQR2M8N2K	COIL	
L203	PQLQR2N1R0K	COIL	
L204	PQLQR2N1R0K	COIL	
L205	PQLQR2M10NK	COIL	
L207	PQLQR2M8N2K	COIL	
L208	MQLRE5N6JF	COIL	
L209	PQLQR2M8N2K	COIL	
L210	PQLQR2M10NK	COIL	
L211	PQLQR2M6N8K	COIL	
L212	PQLQR2M10NK	COIL	
F201	PQVCM214M15A	(CERAMIC FILTERS)	
F203	EZFN903AM01	CERAMIC FILTER	
F204	PQVSNSVA927N	CERAMIC FILTER	
		(TRIMMER CAPACITORS)	
VC201	PQCVTZB10ZA	TRIMMER CAPACITOR	
VC202	PQCVTZB06ZA	TRIMMER CAPACITOR	
VC203	PQCVTZB06ZA	TRIMMER CAPACITOR	
		(CRYSTAL OSCILLATOR)	
X201	PSVCC0042SE	CRYSTAL OSCILLATOR	

## 19.2. KX-T7885WR (Handset) (CABINET AND ELECTRICAL PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
100	PSYM1014Y2	UPPER CABINET	
101	N1BC9HY00002	ANTENNA	
102	PQHS10195Z	NET, SPEAKER	
103	PSHE1084Z	Sponge, LCD	
104	PSBD1005Z2	KNOB, POWER	
105	PSMG1003Y	RUBBER, MIC	
106	PSHG1067Z	COVER, HEAD SET	
107	PSSX1002W1	KEY RUBBER	
108	PSSE1005Y	SHEET, SWITCH	
109	PSSA1020X	ANTENNA, PCB	
110	PQBC10183Z4	BUTTON, VOLUME	
111	PSGP1011X1	PANEL, LCD	
112	PSGD1060Z	TEL CARD	
113	PSGV1001Y	COVER, TEL CARD	
114	PSHE1032Y	SHEET, LCD PANEL	
115	PSKF1011Y2	LOWER CABINET	
116	LNY162C03F	LCD	
117	PQHE10095Z	TAPE, LCD	
118	PQHX10690Z	SHEET, SMOKE	
119	PQHR10507Z	PLATE, REFLECTOR	
120	PQHX10678Z	SHEET, REFLECTOR	
121	PSHG1193Z	RUBBER, SPEAKER	
122	PSAX20P03Z	SPEAKER	
123	PSHE1085Y	TAPE.SP	
124	PSHR1076Y	LCD HOLDER	
125	PSHG1110Z	RUBBER, SPEAKER	
126	PSJQ1017Z	VIB MOTOR	
127	PQUS10155Z	SPRING, BAT RELEASE	
128	PQBC10184Z0	BUTTON, BAT RELEASE	
129	PSGT2178Z	NAME PLATE	
130	PSHE1093Z	TAPE, VIB MOTOR	

## MAIN BOARD PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
<b>PCB3</b>	<b>PSWP2T7885R</b>	<b>MAIN BOARD ASS'Y (RTL)</b>	
		(ICS)	
IC1	AN6159FA	IC	
IC2	PSWIT7885R	IC	
IC3	PQVIA8184SLT	IC	
IC4	PQVIXC3002MR	IC	
IC5	AN6183S	IC	
IC6	PQVINJM2904V	IC	
IC7	PSVI93LC66XI	IC	
IC8	PQVISC78184D	IC	
IC9	PQVIXC3002MR	IC	
IC10	PQVINJM2135V	IC	
		(TRANSISTORS)	
Q2	PSVTDTA123JU	TRANSISTOR(SI)	
Q3	PQVTDTCT114E	TRANSISTOR(SI)	
Q4	2SD1819A	TRANSISTOR(SI)	
Q5	UN521	TRANSISTOR(SI)	S
Q6	2SC4116	TRANSISTOR(SI)	
Q7	UN5213	TRANSISTOR(SI)	S
Q8	UN521	TRANSISTOR(SI)	S
Q9	UN521	TRANSISTOR(SI)	S
Q10	2SC4617R	TRANSISTOR(SI)	
Q11	UN521	TRANSISTOR(SI)	S
Q12	UN521	TRANSISTOR(SI)	S
Q13	PQVTDTA114YU	TRANSISTOR(SI)	
Q15	2SC4116	TRANSISTOR(SI)	
Q16	PQVTFB1L2Q	TRANSISTOR(SI)	
Q17	UN5113	TRANSISTOR(SI)	S
Q18	PQVTDTA143EU	TRANSISTOR(SI)	
Q19	PQVTDTB123E	TRANSISTOR(SI)	
Q20	PQVTDTB123E	TRANSISTOR(SI)	
Q21	PQVTDTB123E	TRANSISTOR(SI)	
Q22	2SD1819A	TRANSISTOR(SI)	
Q23	2SC4116	TRANSISTOR(SI)	
Q24	2SC4116	TRANSISTOR(SI)	
		(DIODES)	
D2	PQVDRB751H4	DIODE(SI)	
D3	LNJ308G8JRA	DIODE(SI)	
D4	PSVDLS22BB1U	DIODE(SI)	
D5	PSVDLS22BB1U	DIODE(SI)	
D6	PSVDLS22BB1U	DIODE(SI)	
D7	PSVDLS22BB1U	DIODE(SI)	
D8	LNJ308G8JRA	DIODE(SI)	
D9	LNJ308G8JRA	DIODE(SI)	
D10	LNJ308G8JRA	DIODE(SI)	
D11	LNJ308G8JRA	DIODE(SI)	
D12	LNJ308G8JRA	DIODE(SI)	
D13	LNJ308G8JRA	DIODE(SI)	

Ref. No.	Part No.	Part Name & Description	Remarks
D14	LNJ308G8JRA	DIODE(SI)	
D15	LNJ308G8JRA	DIODE(SI)	
D16	LNJ308G8JRA	DIODE(SI)	
D17	LNJ308G8JRA	DIODE(SI)	
D19	PQVDRB751H4	DIODE(SI)	
D20	LNJ308G8JRA	DIODE(SI)	
D21	LNJ308G8JRA	DIODE(SI)	
D22	LNJ308G8JRA	DIODE(SI)	
D25	MA8039L	DIODE(SI)	
D26	MA8110L	DIODE(SI)	
		(CONNECTORS)	
CN1	PQJT10098X	CONNECTOR	
CN2	PQJP02B49Z	CONNECTOR, 2P	
CN3	PSJS10A01Z	CONNECTOR, 10P	
CN4	PQJS20A96Z	CONNECTOR, 20P	
CN5	PSJP10B01Z	CONNECTOR, 10P	
		(CAPACITORS)	
C3	ECUV1C104KBV	0.1	S
C4	ECST0JX336	33	
C6	ECUV1C104KBV	0.1	S
C8	ECST0JX336	33	
C9	ECUV1H332KBV	0.0033	
C10	ECUV1C104KBV	0.1	S
C11	ECST1CY105	1	
C12	ECUV1C473KBV	0.047	
C14	ECST0JX226	22	
C15	ECUV1H562KBV	0.0056	
C17	ECUV1C104KBV	0.1	
C18	ECUV1A105ZFV	1	
C19	ECUV1C473KBV	0.047	
C20	ECUV1A105ZFV	1	
C23	ECST0JD227	220	
C28	ECUV1C104KBV	0.1	S
C29	ECST0GY226	22	
C30	ECUV1H152KBV	0.0015	
C31	ECUV1H220JCV	22P	
C33	ECUV1C683KBV	0.068	
C34	ECUV1H101JCV	100P	
C35	ECUV1H102KBV	0.001	
C39	ECUV1H102KBV	0.001	
C40	ECUV1H680JCV	68P	
C41	ECUV1H153KBV	0.015	
C42	ECUV1H180JCV	18P	
C43	ECUV1A105ZFV	1	
C44	ECUV1H120JCV	12P	
C45	ECUV1H120JCV	12P	
C46	ECUV1A105ZFV	1	

Ref. No.	Part No.	Part Name & Description	Remarks
C47	ECUV1H101JCV	100P	
C48	ECUV1H100DCV	10P	S
C50	ECUV1C104KBV	0.1	
C51	ECUV1C104KBV	0.1	
C53	ECUV1C104KBV	0.1	S
C55	ECST0JY106	10	
C56	ECUV1H223KBV	0.022	S
C57	ECUV1H223KBV	0.022	S
C58	ECUV1A105ZFV	1	
C59	ECUV1A105ZFV	1	
C60	ECUV1H102KBV	0.001	
C61	ECUV1A105ZFV	1	
C62	ECUV1A105ZFV	1	
C63	ECST0JY106	10	
C64	ECST0JY475	4.7	
C65	ECUV1C104KBV	0.1	S
C66	ECST0JY106	10	
C67	ECUV1C104KBV	0.1	
C68	ECUV1C104KBV	0.1	S
C69	ECUV1C473KBV	0.047	
C70	ECUV1C473KBV	0.047	
C71	ECUV1A105ZFV	1	
C72	ECUV1C473KBV	0.047	
C73	ECUV1C473KBV	0.047	
C74	ECUV1C473KBV	0.047	
C75	ECUV1H223KBV	0.022	S
C76	ECST0JY475	4.7	
C77	ECST0JY106	10	
C78	ECST0JY475	4.7	
C79	ECUV1C104KBV	0.1	S
C80	ECUV1H222KBV	0.0022	
C81	ECUV1C104KBV	0.1	S
C82	ECUV1C104KBV	0.1	S
C83	ECUV1H103KBV	0.01	
C84	ECUV1H103KBV	0.01	
C85	ECST0JX226	22	
C87	ECUV1H222KBV	0.0022	
C88	ECUV1C104KBV	0.1	
C89	ECUV1A105ZFV	1	
C90	ECUV1A105ZFV	1	
C91	ECUV1C104KBV	0.1	S
C92	ECUV1C104KBV	0.1	
C93	ECUV1C104KBV	0.1	S
C94	ECUV1C823KBV	0.082	
C95	ECUV1C102KBV	0.001	
C96	ECUV1A105ZFV	1	
C97	ECUV1C823KBV	0.082	
C98	ECUV1A105ZFV	1	
C99	ECUV1A105ZFV	1	

Ref. No.	Part No.	Part Name & Description	Remarks
C100	ECUV1A105ZFV	1	
C101	ECUV1A105ZFV	1	
C111	ECUV1A105ZFV	1	
C112	ECST0GY226	22	
C113	ECST0GY226	22	
C114	ECST0GY226	22	
C116	ECUV1A105ZFV	1	
C117	ECST0JY225	2.2	
C118	ECUV1C104KBV	0.1	
C119	ECUV1H822KBV	0.0082	
C120	ECUV1C104KBV	0.1	S
C121	ECST0JY225	2.2	
C122	ECST0JY225	2.2	
C123	ECUV1A105ZFV	1	
C124	ECUV1H152KBV	0.0015	
C125	ECUV1H220JCV	22P	
C126	ECST0JY225	2.2	
C127	ECUV1H103KBV	0.01	
		(RESISTORS)	
R1	ERJ3GEYJ102	1k	
R3	PQ4R10XJ220	22	
R4	ERJ3GEY0R00	0	
R5	ERJ3GEYJ105	1M	
R6	ERJ3GEYJ103	10k	
R7	ERJ3GEYJ105	1M	
R9	ERJ3GEYJ104	100k	
R10	ERJ3GEYJ221	220	
R11	ERJ3GEYJ152	1.5k	
R12	ERJ3GEYJ101	100	
R13	ERJ3GEYJ103	10k	
R14	ERJ3GEYJ101	100	
R15	ERJ3GEYJ474	470k	
R16	ERJ3GEYJ103	10k	
R17	ERJ3GEYJ682	6.8k	
R18	ERJ3GEYJ183	18k	
R19	ERJ3GEYJ101	100	
R20	ERJ3GEYJ104	100k	
R21	ERJ3GEYJ152	1.5k	
R22	ERJ3GEY0R00	0	
R23	ERJ3GEYJ334	330k	
R25	ERJ3GEY0R00	0	
R26	ERJ3GEYJ105	1M	
R27	ERJ3GEYJ220	22	
R28	ERJ3GEY0R00	0	
R29	ERJ3GEYJ124	120k	
R31	ERJ3GEYJ103	10k	
R32	ERJ3GEYJ473	47k	

Ref. No.	Part No.	Part Name & Description	Remarks
R33	ERJ3GEYJ274	270k	
R34	ERJ3GEYJ104	100k	
R36	ERJ3GEYJ181	180	
R38	PQ4R10XJ820	82	
R40	ERJ3GEYJ473	47k	
R41	ERJ3GEYJ102	1k	
R43	ERJ3GEYJ152	1.5k	
R45	ERJ3GEYJ681	680	
R47	ERJ3GEYJ392	3.9k	
R49	ERJ3GEYJ391	390	
R51	ERJ3GEYJ183	18k	
R52	ERJ3GEYJ684	680k	
R53	ERJ3GEYJ224	220k	
R54	ERJ3GEYJ273	27k	
R55	ERJ3GEYJ102	1k	
R56	ERJ3GEYJ104	100k	
R57	ERJ3GEYJ823	82k	
R58	ERJ3GEYJ151	150	
R59	ERJ3GEYJ331	330	
R60	ERJ3GEYJ151	150	
R61	ERJ3GEYJ331	330	
R62	ERJ3GEYJ151	150	
R63	ERJ3GEYJ331	330	
R64	ERJ3GEYJ151	150	
R65	ERJ3GEYJ331	330	
R66	ERJ3GEY0R00	0	
R67	PQ4R10XJ560	56	
R68	ERJ3GEYJ820	82	
R70	ERJ3GEYJ124	120k	
R71	ERJ3GEYJ474	470k	
R72	ERJ3GEYJ105	1M	
R76	ERJ3GEYJ103	10k	
R77	ERJ3GEYJ104	100k	
R78	ERJ3GEYJ103	10k	
R79	ERJ3GEYJ100	10	
R81	ERJ3GEYJ332	3.3k	
R82	ERJ3GEYJ472	4.7k	
R83	ERJ3GEYJ102	1k	
R84	ERJ3GEYJ273	27k	
R85	ERJ3GEYJ562	5.6k	
R86	ERJ3GEYJ332	3.3k	
R87	ERJ3GEYJ472	4.7k	
R88	ERJ3GEYJ683	68k	
R89	ERJ3GEYJ122	1.2k	
R90	ERJ3GEYJ823	82k	
R91	ERJ3GEYJ104	100k	
R93	ERJ3GEYJ183	18k	
R94	ERJ3GEYJ104	100k	

Ref. No.	Part No.	Part Name & Description	Remarks
R95	ERJ3GEYJ104	100k	
R96	ERJ3GEYJ274	270k	
R97	ERJ3GEYJ184	180k	
R98	ERJ3GEYJ683	68k	
R99	ERJ3GEYJ393	39k	
R100	ERJ3GEYJ183	18k	
R101	ERJ3GEYJ103	10k	
R102	ERJ3GEYJ223	22k	
R103	ERJ3GEY0R00	0	
R104	ERJ3GEYJ823	82k	
R109	ERJ3GEYJ153	15k	
R110	ERJ3GEYJ273	27k	
R111	ERJ3GEYJ563	56k	
R112	ERJ3GEYJ124	120k	
R114	ERJ3GEYJ474	470k	
R115	ERJ3GEYJ564	560k	
R116	ERJ3GEYJ183	18k	
R117	ERJ3GEYJ124	120k	
R118	ERJ3GEYJ103	10k	
R119	ERJ3GEYJ100	10	
R120	ERJ3GEYJ100	10	
R121	ERJ3GEYJ104	100k	
R122	ERJ3GEYJ104	100k	
R123	ERJ3GEYJ103	10k	
R124	ERJ3GEY0R00	0	
R125	ERJ3GEYJ272	2.7k	
R126	ERJ3GEYJ474	470k	
R127	ERJ3GEYJ103	10k	
R128	ERJ3GEYJ103	10k	
R129	ERJ3GEYJ100	10	
R130	ERJ3GEYJ103	10k	
R131	ERJ3GEYJ103	10k	
R132	ERJ3GEY0R00	0	
R133	ERJ3GEYJ104	100k	
R134	ERJ3GEYJ125	1.2M	
R135	ERJ3GEYJ102	1k	
R137	ERJ3GEYJ333	33k	
R138	ERJ3GEYJ563	56k	
R139	ERJ3GEYJ473	47k	
R140	ERJ3GEYJ473	47k	
R141	ERJ3GEYJ333	33k	
R145	ERJ3GEY0R00	0	
R146	ERJ3GEY0R00	0	
R147	ERJ3GEY0R00	0	
R148	ERJ3GEYJ101	100	
R149	ERJ3GEY0R00	0	
R150	ERJ3GEYJ101	100	
R151	ERJ3GEYJ101	100	

Ref. No.	Part No.	Part Name & Description	Remarks
R152	ERJ3GEYJ101	100	
R153	ERJ3GEYJ153	15k	
R154	ERJ3GEYJ103	10k	
R160	ERJ3GEY0R00	0	
R161	ERJ3GEYJ224	220k	
R164	ERJ3GEYJ124	120k	
R165	ERJ3GEYJ823	82k	
R166	ERJ3GEYJ222	2.2k	
R167	ERJ3GEYJ102	1k	
R168	ERJ3GEYJ333	33k	
R169	ERJ3GEYJ122	1.2k	
R170	ERJ3GEYJ471	470	
R171	ERJ3GEY0R00	0	
R172	ERJ3GEY0R00	0	
R173	ERJ3GEY0R00	0	
R175	ERJ3GEYJ473	47k	
R176	ERJ3GEYJ683	68k	
R177	ERJ3GEYJ153	15k	
J1	ERJ3GEY0R00	0	
J2	ERJ3GEY0R00	0	
J3	ERJ3GEY0R00	0	
L1	ERJ3GEY0R00	0	
L2	ERJ3GEY0R00	0	
C37	ERJ3GEY0R00	0	
		(JACK)	
JK1	PQJJ1J007Z	JACK	
		(CERAMIC FILTERS)	
F1	PQVFSFPC455E	CERAMIC FILTER	
L3	PQVFCDDBC455M	CERAMIC FILTER	
		(SWITCH)	
SW1	ESD165206	SWITCH	
		(VARIABLE RESISTORS)	
VR1	EVM1YSX50B24	VARIABLE RESISTOR	
VR2	EVM1YSX50B54	VARIABLE RESISTOR	
VR3	EVM1SSX50B53	VARIABLE RESISTOR	
		CRYSTAL OSCILLATOR AND CERAMIC FILTERS	
X1	PQVCE2094N4R	CRYSTAL OSCILLATOR	
X2	PQVCE3276N9Z	CRYSTAL OSCILLATOR	
X3	PQVBTCS4.00M	CERAMIC FILTER	
		(ELECTRIC PARTS)	
E1	PQEFBQM111G3	BUZZER	S
E2	PQHG10326Z	RUBBER, RINGER	
MIC	PSJM1001Z	MICROPHONE	

**(RF UNIT PARTS)**

Ref. No.	Part No.	Part Name & Description	Remarks
<b>PCB4</b>	<b>PSWU2T7885R2</b>	RF UNIT ASS'Y (RTL)	
		(ICS)	
<b>IC201</b>	<b>PQVIM64084GP</b>	IC	
<b>IC202</b>	<b>PQVIPC2746TE</b>	IC	
		(TRANSISTORS)	
<b>Q201</b>	<b>2SC4099NT106</b>	TRANSISTOR(SI)	
<b>Q202</b>	<b>2SC4099NT106</b>	TRANSISTOR(SI)	
<b>Q204</b>	<b>2SC3356R24</b>	TRANSISTOR(SI)	
<b>Q205</b>	<b>2SC4571R77</b>	TRANSISTOR(SI)	<b>S</b>
<b>Q206</b>	<b>2SC4226R24</b>	TRANSISTOR(SI)	
<b>Q207</b>	<b>2SC5007</b>	TRANSISTOR(SI)	
<b>Q208</b>	<b>2SC5086</b>	TRANSISTOR(SI)	
<b>Q209</b>	<b>2SC5086</b>	TRANSISTOR(SI)	
<b>Q210</b>	<b>2SC5007</b>	TRANSISTOR(SI)	
		(DIODES)	
<b>D201</b>	<b>PQVD1SV276</b>	DIODE(SI)	
<b>D202</b>	<b>PQVD1SV276</b>	DIODE(SI)	
<b>D203</b>	<b>MA110</b>	DIODE(SI)	
		(CONNECTOR)	
<b>CN200</b>	<b>PQJS10A82Z</b>	CONNECTOR, 10P	
		(CAPACITORS)	
<b>C201</b>	<b>ECUE1E102KBQ</b>	0.001	
<b>C202</b>	<b>ECUV1H101JCQ</b>	100P	
<b>C203</b>	<b>ECUE1H2R5BUQ</b>	2.5	
<b>C204</b>	<b>ECUE1H150JCQ</b>	15P	
<b>C205</b>	<b>ECST0GX476</b>	47	
<b>C206</b>	<b>ECUE1H030CCQ</b>	3P	
<b>C207</b>	<b>ECUV1C104KBV</b>	0.1	<b>S</b>
<b>C208</b>	<b>ECUE1H040CCQ</b>	4P	
<b>C209</b>	<b>ECUE1H030CCQ</b>	3P	
<b>C210</b>	<b>ECUV1H332KBV</b>	0.0033	
<b>C211</b>	<b>ECUV1H332KBV</b>	0.0033	
<b>C212</b>	<b>ECUV1C104KBV</b>	0.1	<b>S</b>
<b>C213</b>	<b>ECUV1H102KBV</b>	0.001	
<b>C215</b>	<b>ECUE1E102KBQ</b>	0.001	
<b>C216</b>	<b>ECUE1H020CCQ</b>	2P	
<b>C217</b>	<b>ECUV1H101JCQ</b>	100P	
<b>C218</b>	<b>ECUV1H060DCV</b>	6P	
<b>C219</b>	<b>ECUE1H180JCQ</b>	18P	
<b>C220</b>	<b>ECUE1C103KBQ</b>	0.01	
<b>C223</b>	<b>ECUV1H102KBV</b>	0.001	
<b>C224</b>	<b>ECUE1H030CCQ</b>	3P	
<b>C225</b>	<b>ECUV1H060DCV</b>	6P	
<b>C226</b>	<b>ECUE1H020CCQ</b>	2P	

Ref. No.	Part No.	Part Name & Description	Remarks
C227	ECUE1H100DCQ	10P	
C230	ECUV1H102KBV	0.001	
C231	ECUV1H101JCV	100P	
C232	ECUV1H040CCV	4P	
C233	ECUV1H220JCV	22P	
C234	ECUE1E102KBQ	0.001	
C235	ECUE1H020CCQ	2P	
C236	ECUE1H040CCQ	4P	
C237	ECUV1H020CCV	2P	
C238	F1H1H360A768	36P	
C239	ECST0GX476	47	
C240	ECUV1H102KBV	0.001	
C241	ECUV1C104KBV	0.1	S
C242	ECUE1H030CCQ	3P	
C243	ECUE1H030CCQ	3P	
C244	ECUE1H030CCQ	3P	
C245	ECUV1H430JGV	43P	
C246	ECUE1E102KBQ	0.001	
C247	ECUV1H150JGV	15P	
C248	ECUE1H030BUQ	3P	
C249	ECUV1H102KBV	0.001	
C250	ECUV1C224KB	0.22	
C251	ECUV1H562KBV	0.0056	
C252	ECUV1H562KBV	0.0056	
C253	ECST0GX476	47	
C254	ECUV1H103KBV	0.01	
C255	ECUV1H103KBV	0.01	
C256	ECUV1H330JCV	33P	
C257	ECUV1H330JCV	33P	
C258	ECUV1H330JCV	33P	
C259	ECUV1H101JCV	100P	
C260	ECUV1H040CCV	4P	
C261	ECUE1H150JCQ	15P	
C262	ECUV1H010CCV	1P	
C263	ECUE1E102KBQ	0.001	
C264	ECUV1H102KBV	0.001	
C265	ECUV1H040CCV	4P	
C266	ECUV1H220JCV	22P	
		(RESISTORS)	
R201	ERJ2GEJ222	2.2k	
R202	ERJ2GEJ151	150	
R204	ERJ2GEJ182	1.8k	
R205	ERJ3GEYJ153	15k	
R206	ERJ3GEYJ153	15k	
R207	ERJ3GEYJ333	33k	
R208	ERJ3GEYJ220	22	
R209	ERJ3GEYJ470	47	
R210	ERJ3GEYJ102	1k	

Ref. No.	Part No.	Part Name & Description	Remarks
R211	ERJ3GEYJ472	4.7k	
R212	ERJ3GEYJ104	100k	
R213	ERJ3GEYJ152	1.5k	
R214	ERJ2GEJ561	560	
R215	ERJ3GEYJ470	47	
R216	ERJ3GEYJ104	100k	
R219	ERJ3GEYJ100	10	
R220	ERJ3GEYJ103	10k	
R221	ERJ3GEYJ683	68k	
R222	ERJ3GEYJ470	47	
R223	ERJ3GEYJ470	47	
R224	ERJ2GEJ182	1.8k	
R226	ERJ3GEYJ100	10	
R227	ERJ3GEYJ473	47k	
R229	ERJ2GEJ821	820	
R230	ERJ3GEYJ333	33k	
R231	ERJ3GEYJ153	15k	
R232	ERJ3GEYJ153	15k	
R233	ERJ3GEYJ331	330	
R236	ERJ2GEJ821	820	
R237	ERJ3GEYJ331	330	
R239	ERJ2GEJ682	6.8k	
R240	ERJ2GEJ103	10k	
R241	ERJ2GEJ271	270	
R242	ERJ2GEJ682	6.8k	
R243	ERJ2GEJ103	10k	
R244	ERJ2GEJ221	220	
J201	ERJ3GEY0R00	0	
J202	PQ4R18XJ000	0	
J203	ERJWYJ000	0	
J204	ERJ3GEY0R00	0	
		(COILS)	
L201	MQLRE6N8JF	COIL	
L202	PQLQR2M8N2K	COIL	
L203	PQLQR2N1R0K	COIL	
L204	PQLQR2N1R0K	COIL	
L205	PQLQR2M10NK	COIL	
L207	PQLQR2M8N2K	COIL	
L208	MQLRE8N2JF	COIL	
L209	PQLQR2M8N2K	COIL	
L210	PQLQR2M12NK	COIL	
L212	PQLQR2M10NK	COIL	
		(TRIMMER CAPACITORS)	
VC201	PQCVTZB10ZA	TRIMMER CAPACITOR	
VC202	PQCVTZB06ZA	TRIMMER CAPACITOR	
VC203	PQCVTZB06ZA	TRIMMER CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
		(CRYSTAL OSCILLATOR)	
X201	PSVCC0042SE	CRYSTAL OSCILLATOR	
		CERAMIC FILTER	
F201	PQVCM214M15A	CERAMIC FILTER	
F203	EZFN927AM01	CERAMIC FILTER	
F204	PQVSNNSVA903N	CERAMIC FILTER	

### 19.3. KX-T7885WCH (Charging Unit) (CABINET AND ELECTRICAL PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
200	PSYM1013Z2	UPPER CABINET ASS'Y	S
201	PSHR1083Y	BPLOCK	
202	PSMH1089Z	SPRING	
203	PSQT1887Z	LABEL, CAUTION	
204	PQYF10077Z9	LOWER CABINET ASS'Y	S
204-1	PQHG316Z	FOOT RUBBER	
205	PSQT1888Z	LABEL, TERMINAL	
206	PSGT2180Z	NAME PLATE	

#### (MAIN BOARD PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
PCB5	PSWP3T7885CH	MAIN BOARD ASS'Y(RTL)	
		(ICS)	
IC1	PSVIBQ2004EP	IC	
IC2	PQVINJM78L5A	IC	S
		(TRANSISTORS)	
Q1	2SB1424RT101	TRANSISTOR(SI)	
Q2	PQVTDT123JU	TRANSISTOR(SI)	
Q3	PQVTDTA114YU	TRANSISTOR(SI)	
		(DIODES)	
D1	PSVDEC2QS3L	DIODE(SI)	
D2	MA110	DIODE(SI)	
D3	PSVDEC2QS3L	DIODE(SI)	
D4	PSVDZ845A09T	DIODE(SI)	
D5	PSVDZ345A09T	DIODE(SI)	
D6	MA3068	DIODE(SI)	
		(CAPACITORS)	
C1	ECA1EM331B	330	
C2	PQCUV1E104MD	0.1	S
C3	PQCUV1E104MD	0.1	S
C4	ECA0JM221B	220	
C5	ECA1EM331B	330	
C6	PQCUV1E104MD	0.1	S
C7	PQCUV1E104MD	0.1	S
C8	ECEA1EU470	47	S
C9	PQCUV1E104MD	0.1	S

Ref. No.	Part No.	Part Name & Description	Remarks
C10	PQCUV1E104MD	0.1	S
C11	PQCUV1H102J	0.001	S
C12	PQCUV1E104MD	0.1	S
C13	PQCUV1H102J	0.001	S
C14	PQCUV1E104MD	0.1	S
C15	ECA1EM331B	330	
		(RESISTORS)	
R1	PQ4R10XJ102	1K	
R2	PQ4R10XJ102	1K	
R3	PQ4R10XJ560	56	
R4	PQ4R10XJ123	12K	
R5	PQ4R10XJ222	2.2K	
R6	PQ4R10XJ333	33K	
R7	PQ4R10XJ332	3.3K	
R8	PQ4R10XJ122	1.2K	
R9	PQ4R10XJ331	330	
R10	PQ4R10XJ224	220K	
R11	PQ4R10XJ224	220K	
R12	PQ4R10XJ472	4.7K	
R13	PQ4R10XJ000	0	
R14	PQ4R10XJ104	100K	
R15	PQ4R10XJ104	100K	
R16	PQ4R10XJ104	100K	
R17	PQ4R10XJ332	3.3K	
R18	PQ4R10XJ331	330	
R19	PQ4R10XJ1R5	1.5	
R20	PQ4R10XJ1R5	1.5	
R21	PQ4R10XJ1R5	1.5	
R22	PQ4R10XJ1R5	1.5	
R27	ERX1SJR22	0.22	
R28	PQ4R10XJ821	820	
R29	PQ4R10XJ821	820	
R30	PQ4R10XJ821	820	
JP1	PQ4R18XJ000	0	
JP2	PQ4R18XJ000	0	
JP3	PQ4R18XJ000	0	
JP4	PQ4R10XJ000	0	
JP5	PQ4R18XJ000	0	
JP6	PQ4R10XJ000	0	
		(COIL)	
L1	PQLQXL101KT	COIL	
		(OTHERS)	
CN1	PQJJ1B4Y	JACK	
CN2	PSJT1011Y	BATTERY TERMINAL	

## 19.4. KX-T7885W

(CABINET AND ELECTRICAL PARTS)

Ref. No.	Part No.	Part Name & Description	Remarks
A1	KX-A11-G-5	AC ADAPTOR	
A2	PQJA48W	CORD, TEL	
A3	PSKE1006Z2	BELT CLIP	
A4	PQKL25Y3	PLATE, WALL MOUNTING	
A5	HHR-07TA3U8A	BATTERY PACK	
A6	PSQX1739W	INSTRUCTION BOOK	
A7	PSQX1740X	QUICK REFERENCE GUIDE	
A8	PSQW1750Z	LEAFLET	
A9	PSQA2040Z	CAUTION LEAFLET,HANDSET	
P1	PSPK1621Y	GIFT BOX	
P2	PSPN1088Y	INNER BOX	
P3	PSPD1104Z	PAD	
P4	XZB10X25A04	PROTECTION COVER (FOR HANDSET)	
P5	PQPH89Y	PROTECTION COVER (FOR BASE UNIT)	
P6	XZB15X25A04	PROTECTION COVER (FOR CHARGER)	
P7	XZB10X25A02	PROTECTION COVER (FOR ACCESSORIES)	

(FIXTURES AND TOOLS)

Ref. No.	Part No.	Part Name & Description	Remarks
Z1	PQZZ10K13Z	EXTENSION CORD, 10P	

**Note:**

PQZZ10K13Z is necessity for servicing.

## 20. BLOCK DIAGRAM

### 20.1. KX-T7885WH (Base Unit/Main Board)

### 20.2. KX-T7885WH (Base Unit/RF UNIT)

### 20.3. KX-T7885WR (Handset/Main Board)

### 20.4. KX-T7885WR (Handset/RF UNIT)

## 21. SCHEMATIC DIAGRAM

### 21.1. KX-T7885WH (Base Unit/Main Board)

### 21.2. KX-T7885WR (Handset/Main Board)

**21.3. KX-T7885WH (Base Unit/RF Unit)**

**21.4. KX-T7885WR (Handset/RF Unit)**

**21.5. KX-T7885WCH (Charging Unit)**

## **22. PRINTED CIRCUIT BOARD**

**22.1. KX-T7885WH (Base Unit/Main Board)**

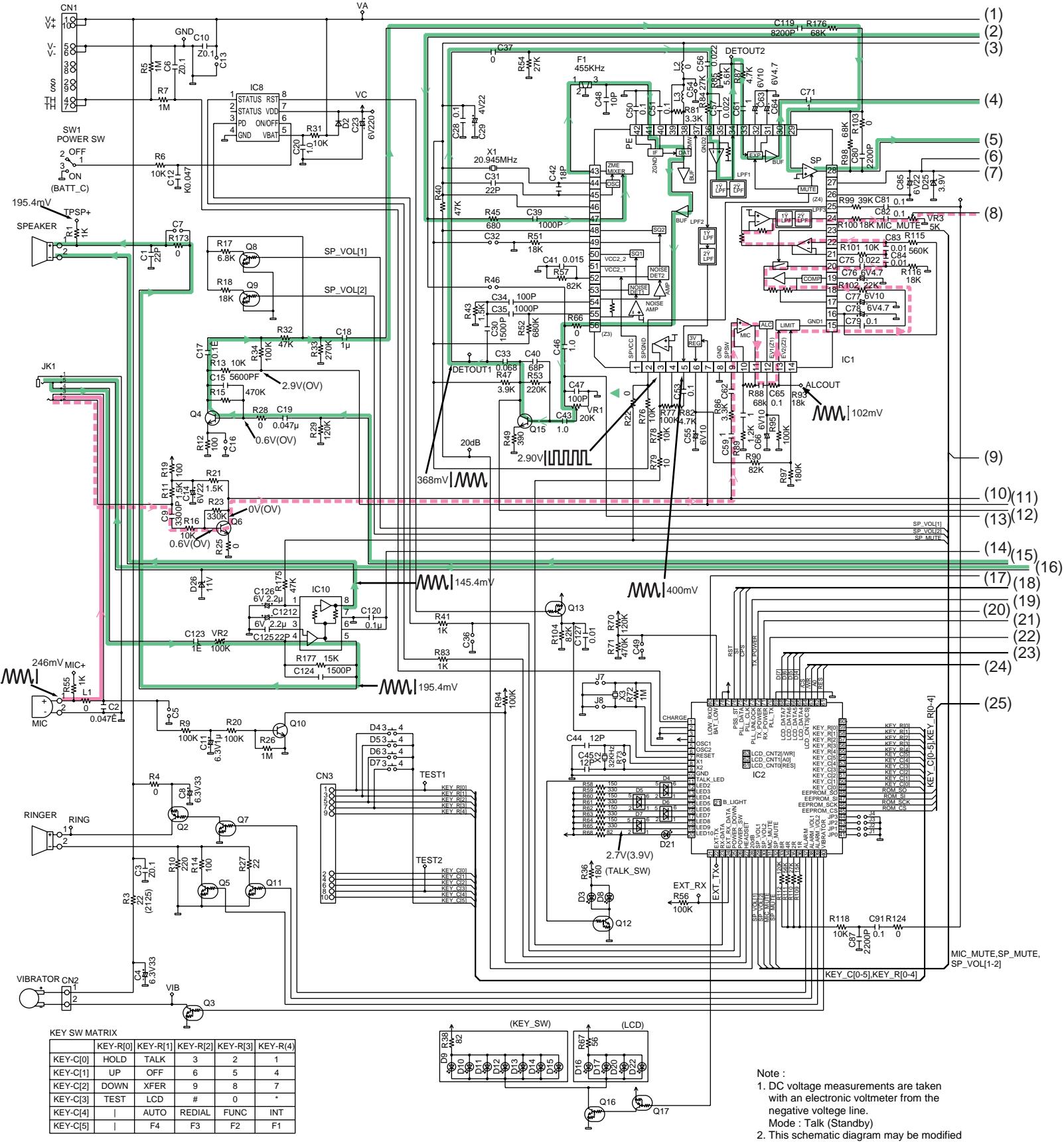
**22.2. KX-T7885WR (Handset/Main Board)**

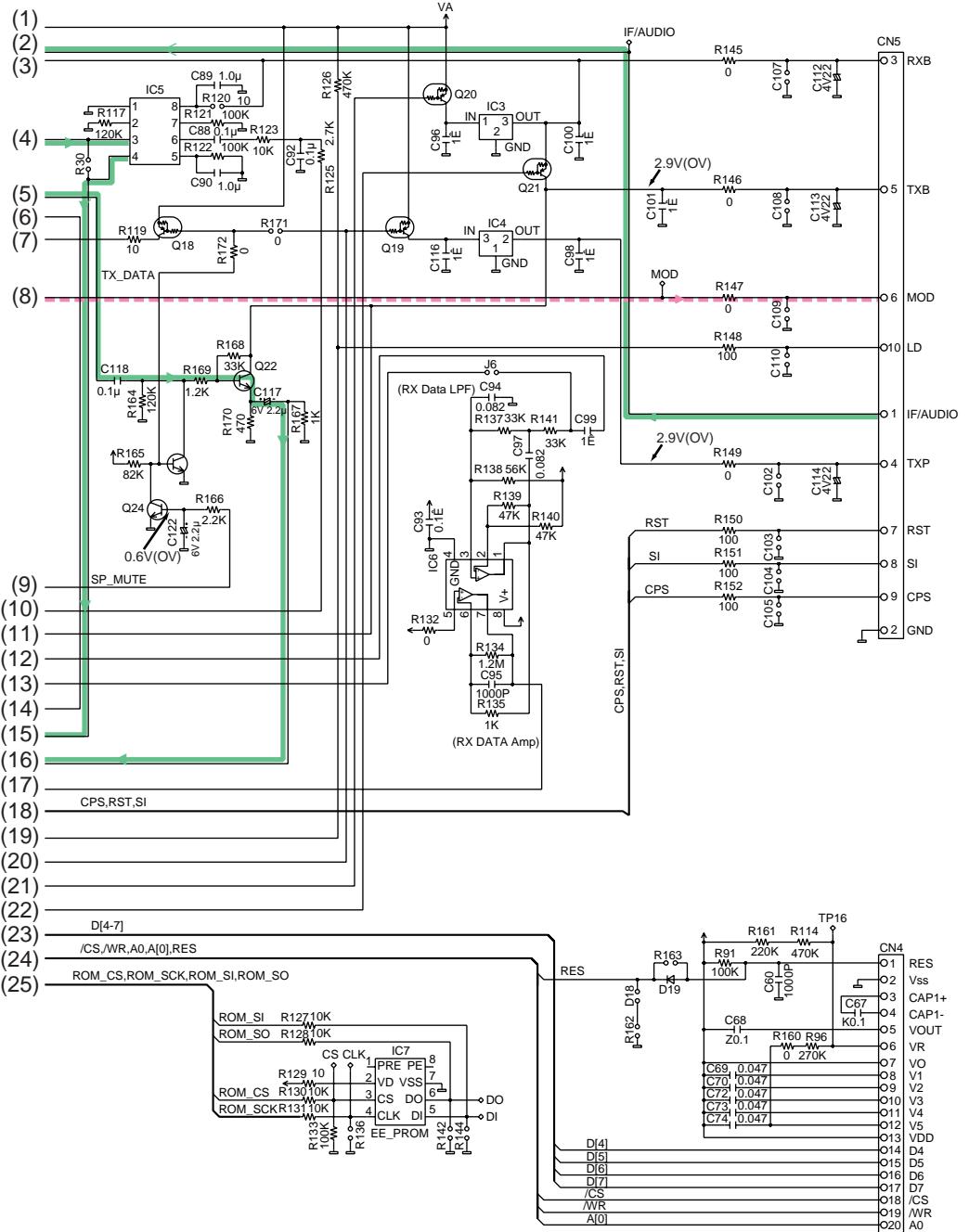
**22.3. KX-T7885WH (Base Unit/RF Unit)**

**22.4. KX-T7885WR (Handset/RF Unit)**

**22.5. KX-T7885WCH (Charging Unit)**

**A KXT7885W**



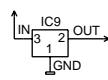
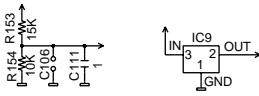


Note :

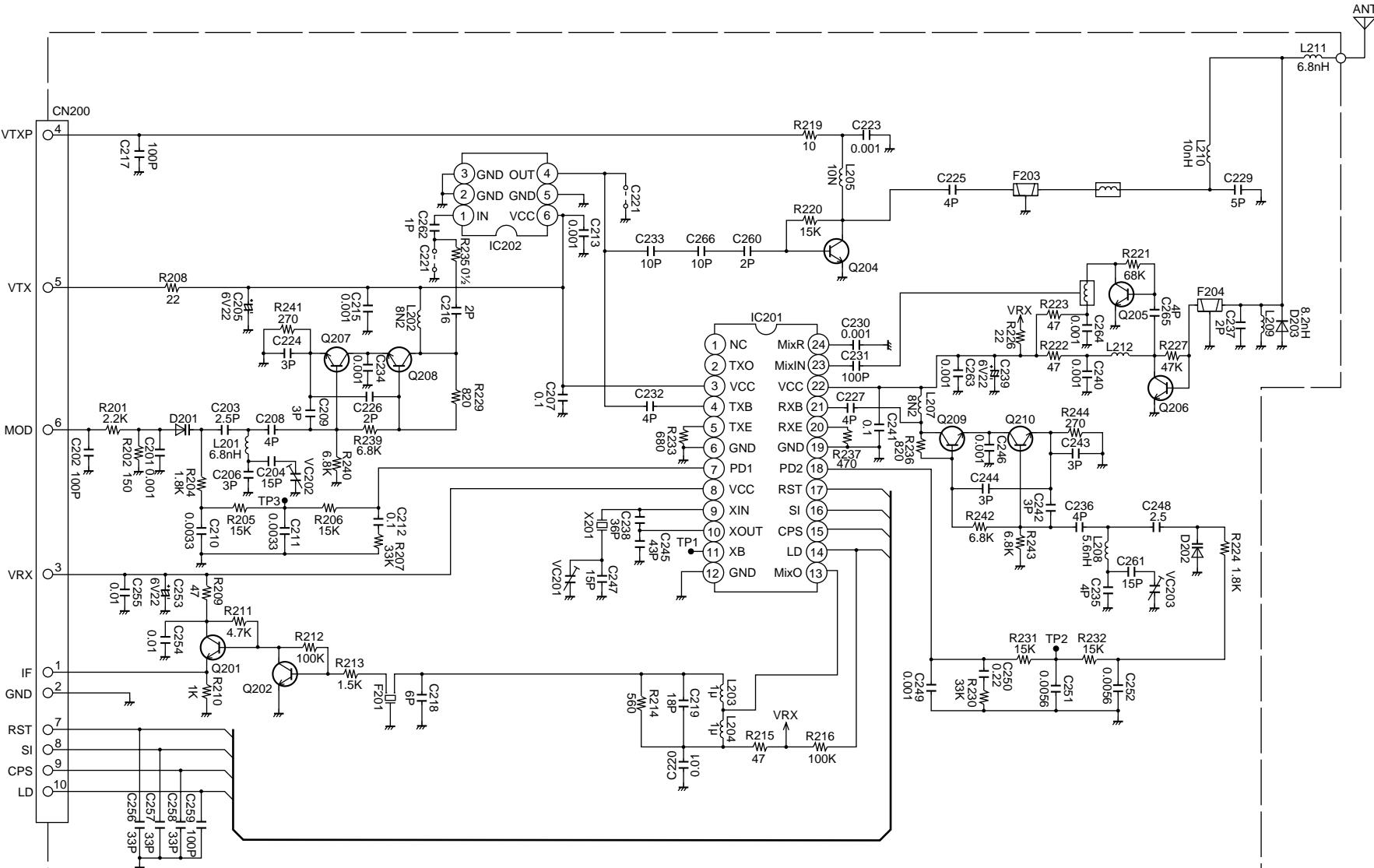
1. DC voltage measurements are taken with an electronic voltmeter from the negative voltage line.  
Mode : Talk (Standby)

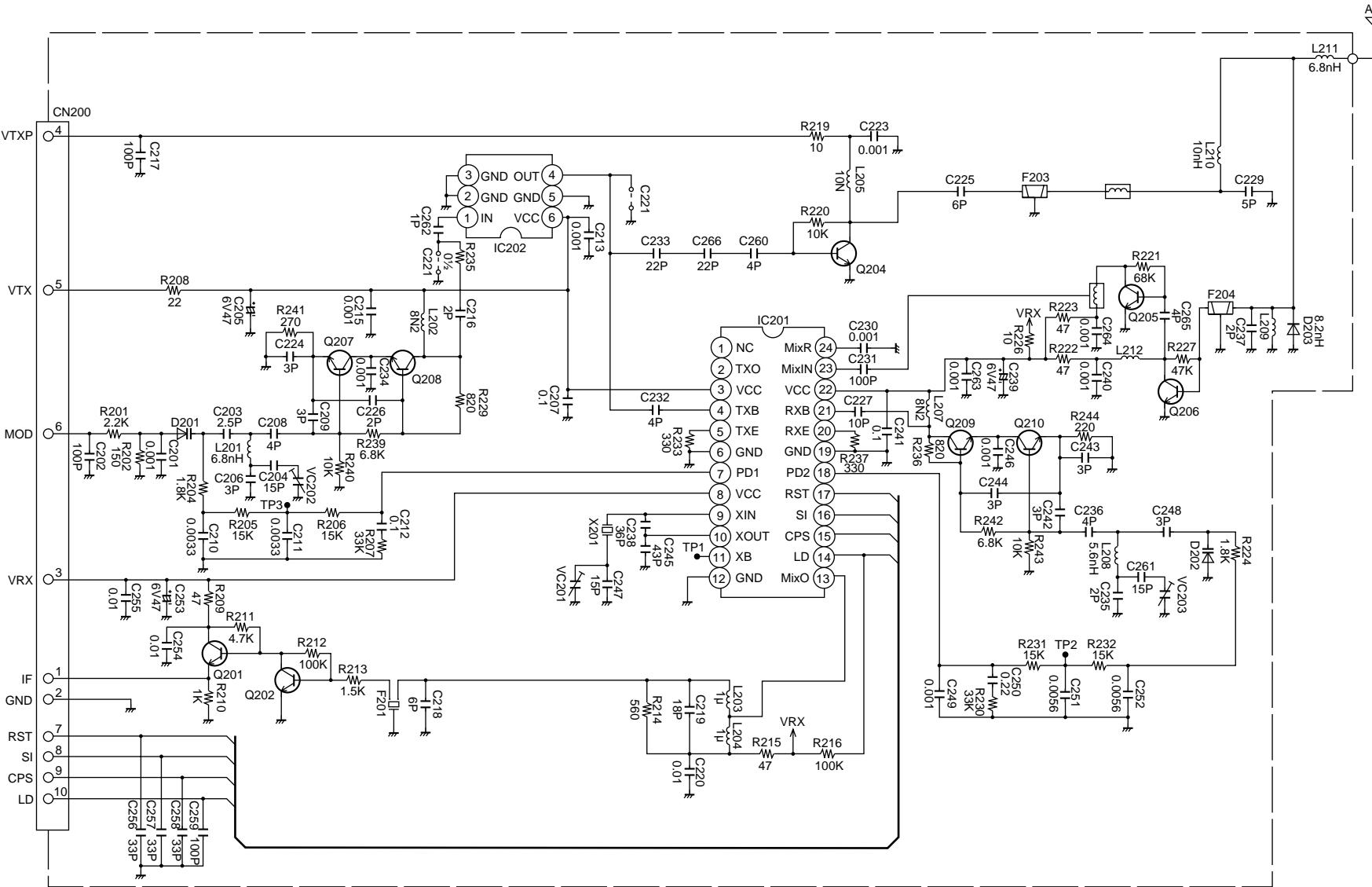
2. This schematic diagram may be modified at any time with development of new technology.

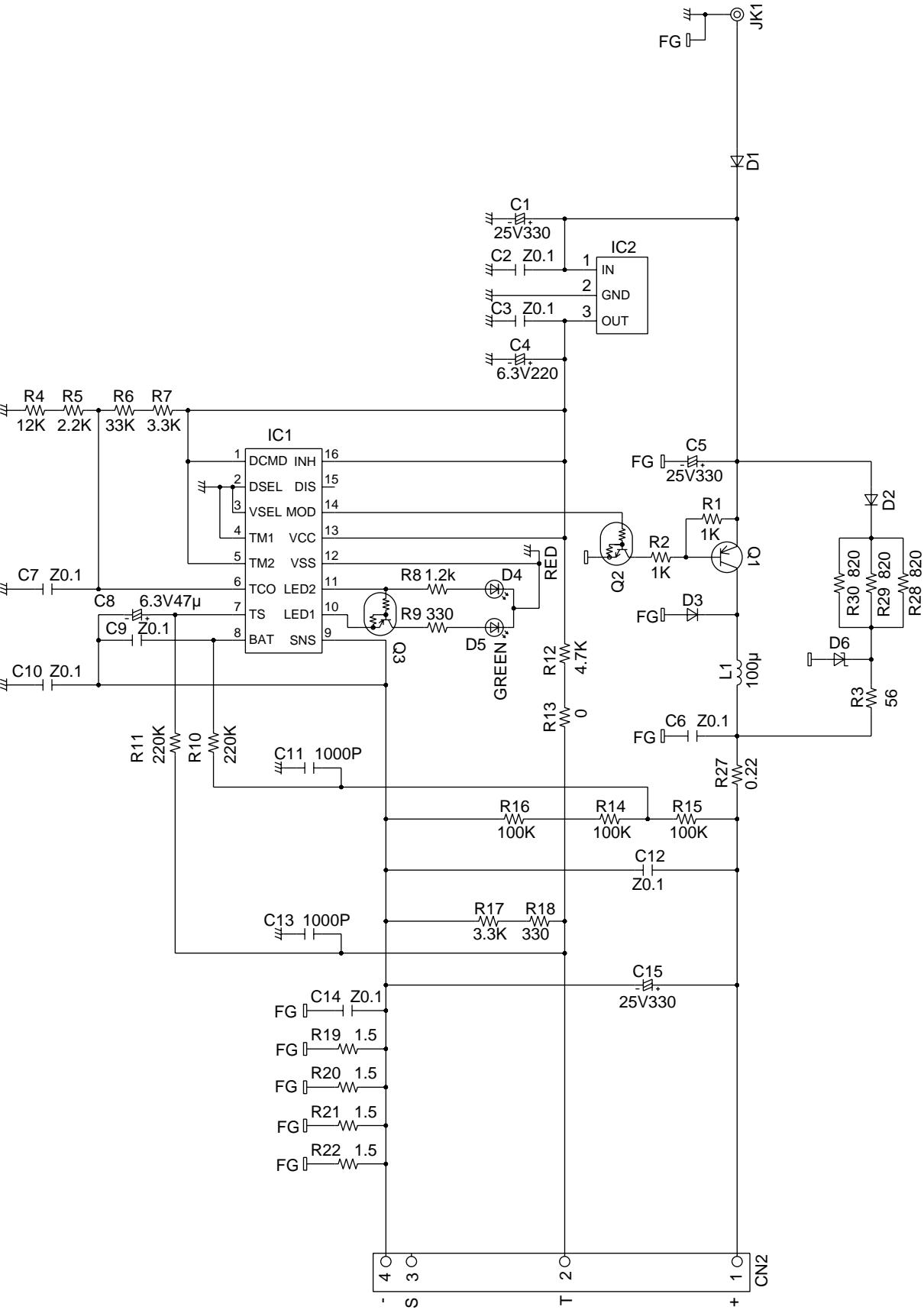
3. IF input 21.4MHz, 1kHz audio, 3kHz devi, 60dBuV  
Mic input -19dBm/1kHz



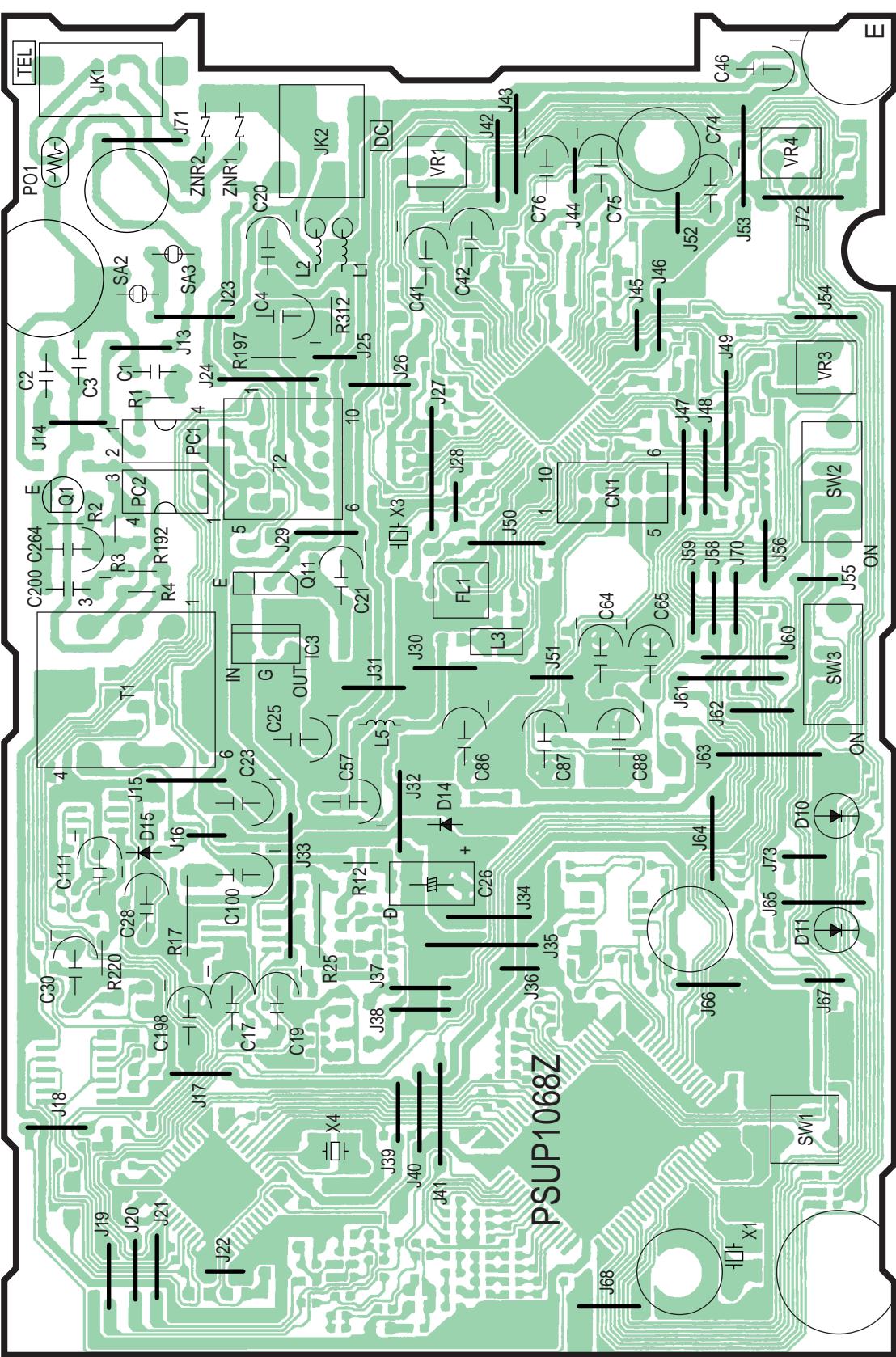
CN4	RES
	Vss
03	CAP1+
04	CAP1-
05	VOUT
06	VR
07	VO
08	V1
09	V2
10	V3
11	V4
12	V5
13	VDD
14	D4
15	D5
16	D6
17	D7
18	/CS
19	/WR
20	A0



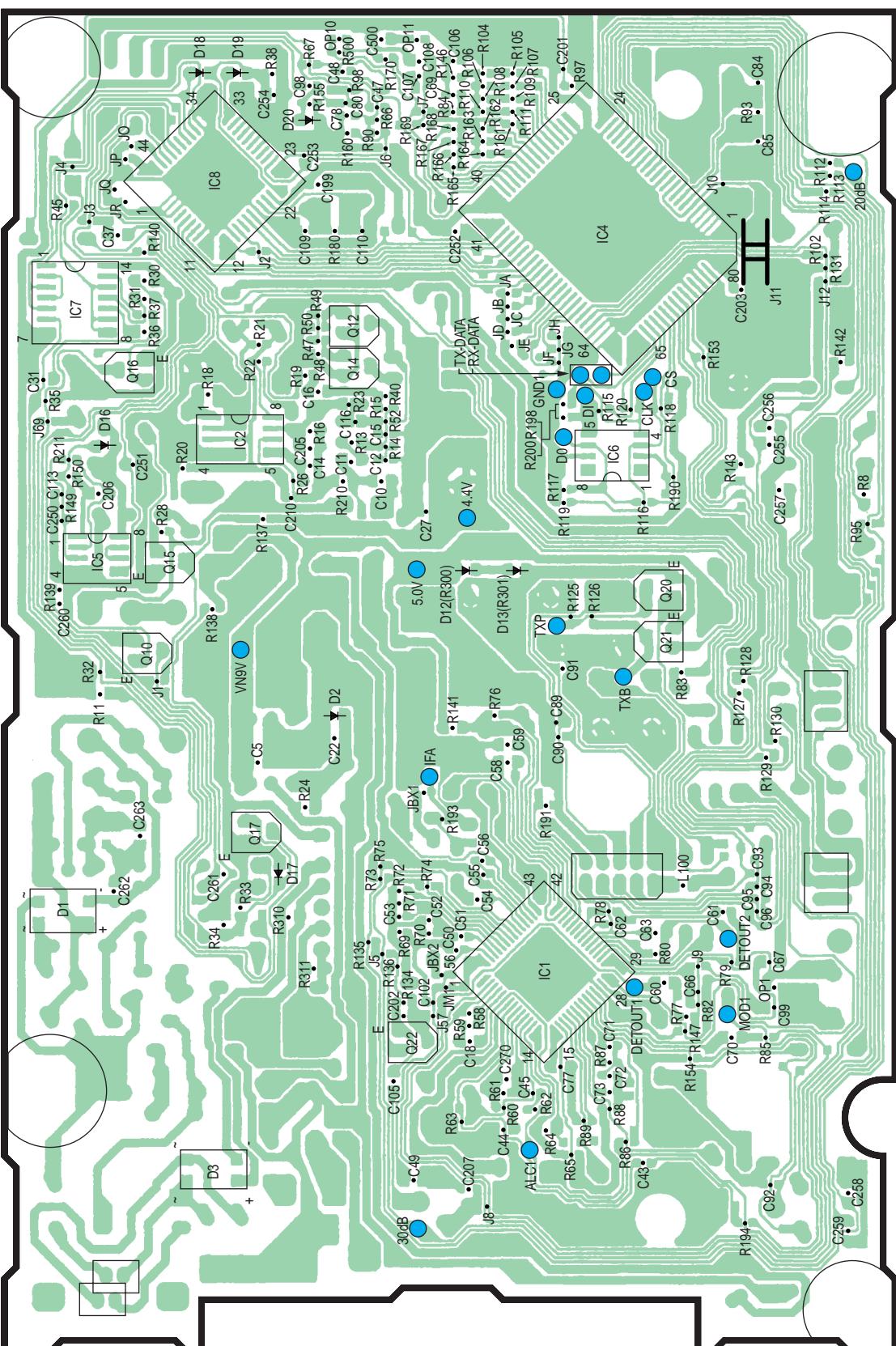




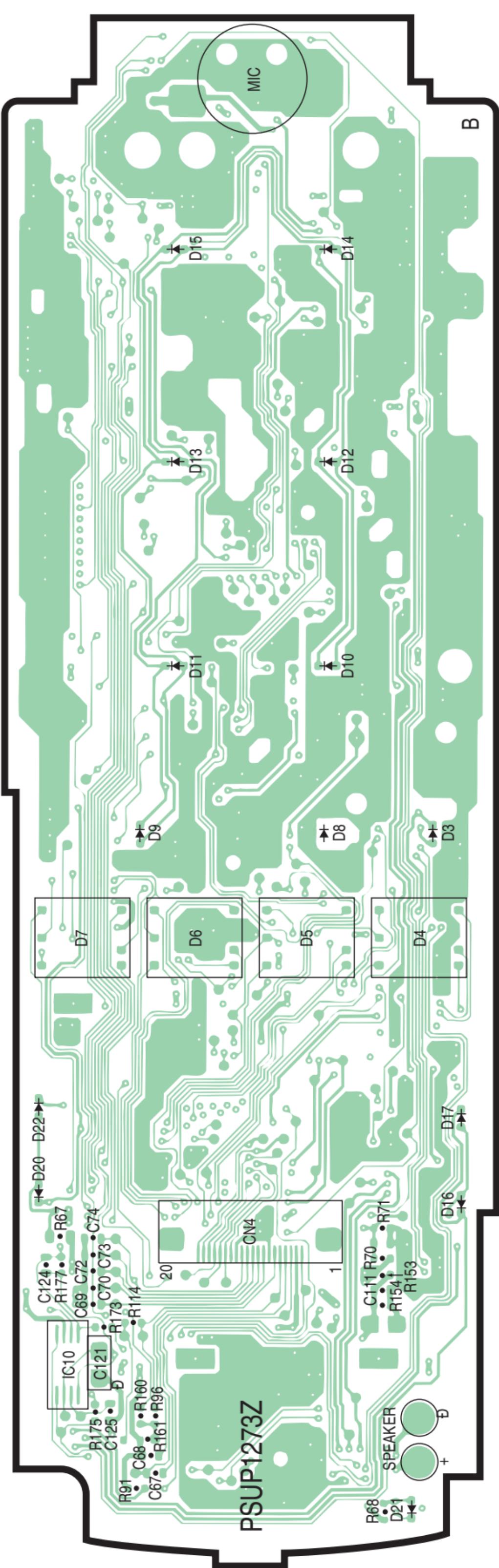
(Component View)



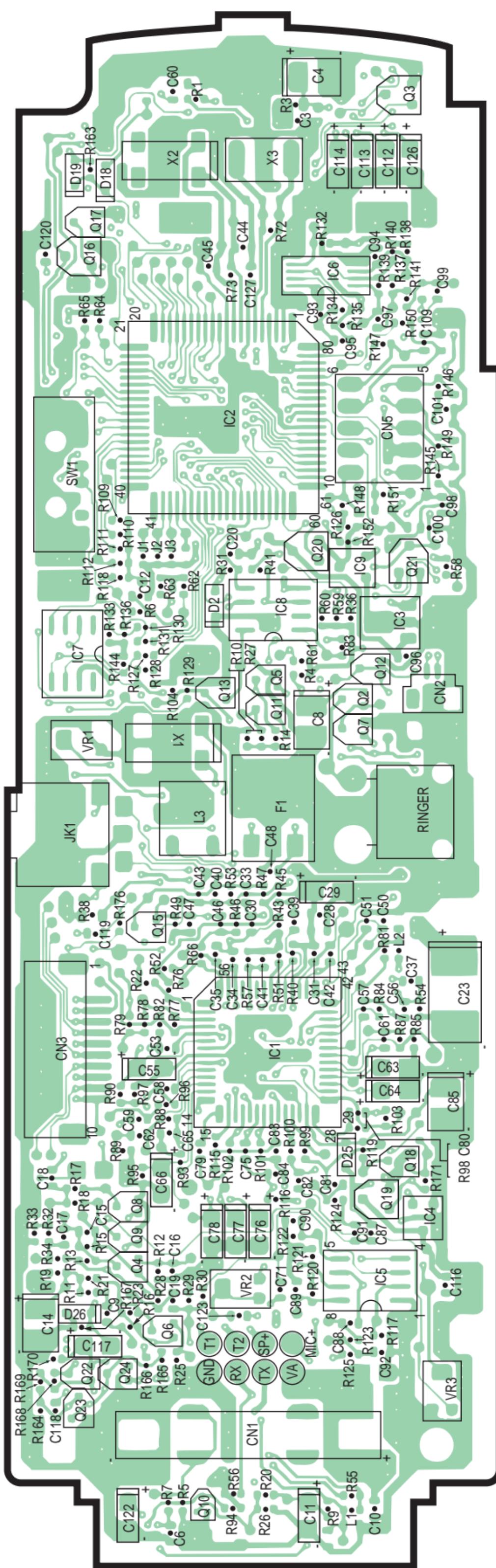
(Bottom View)

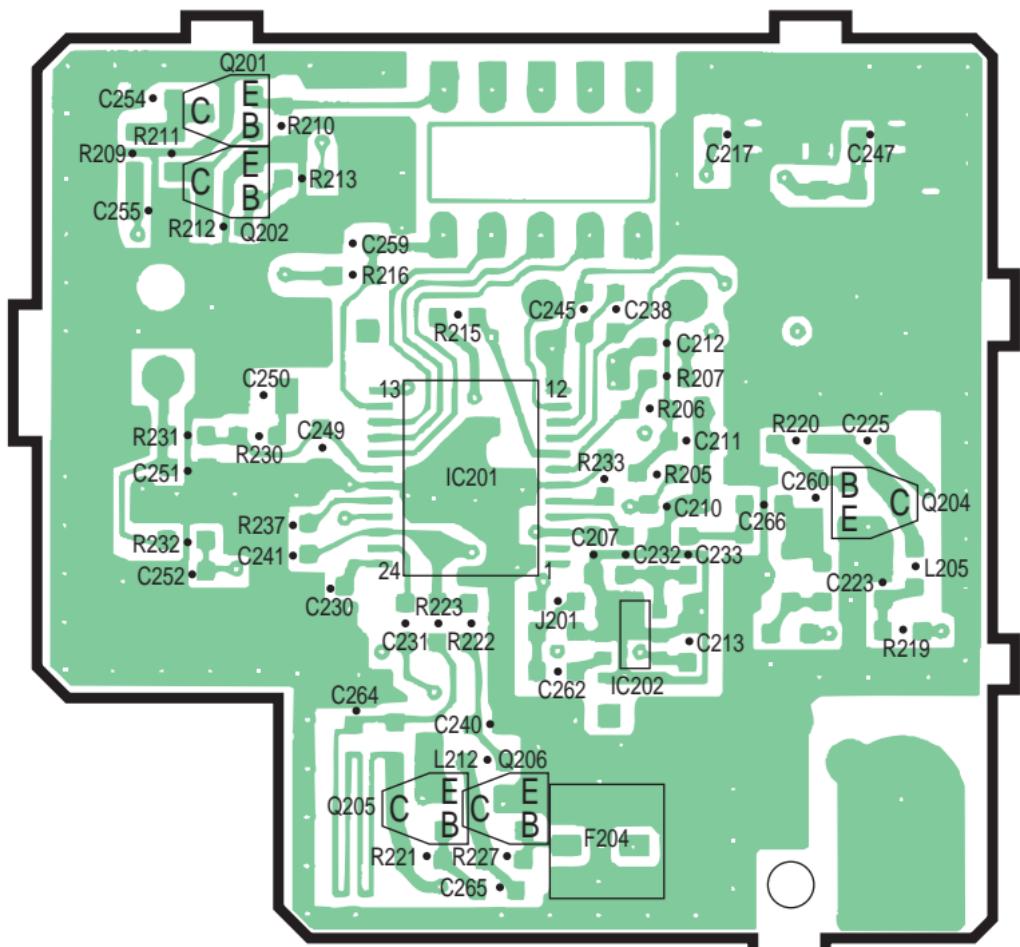
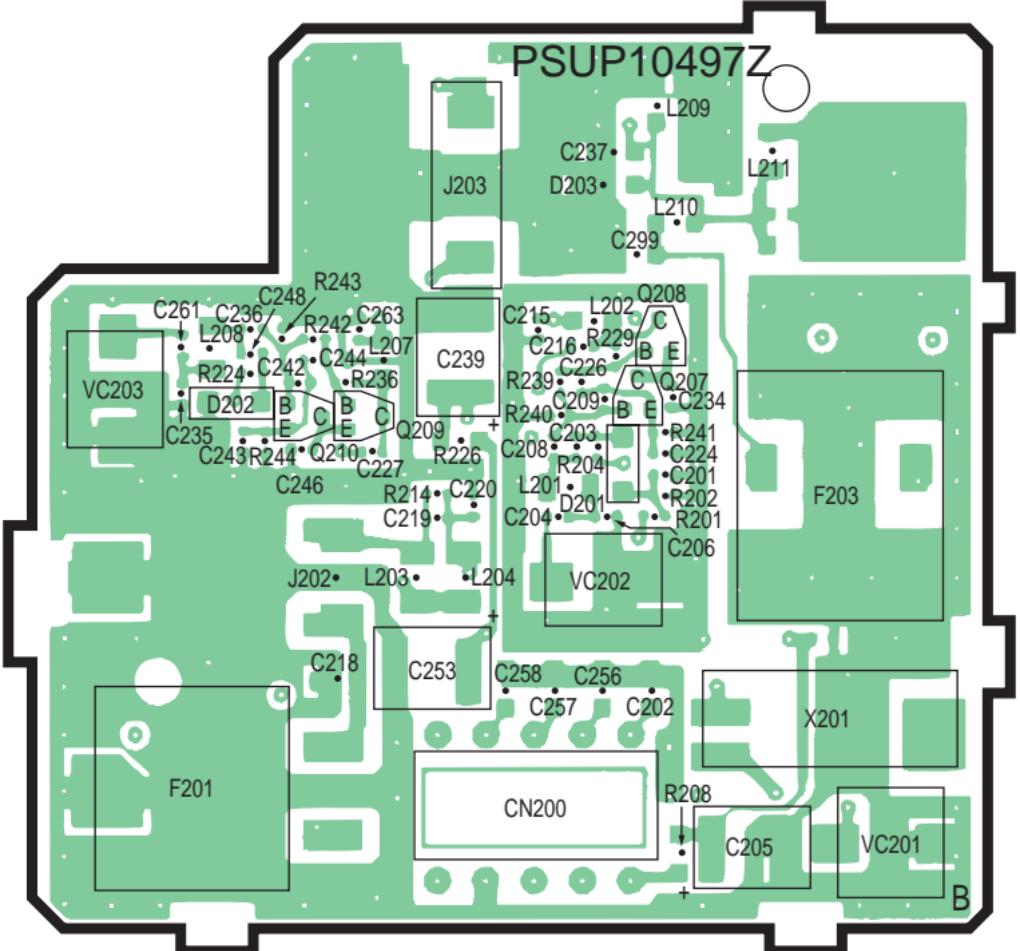


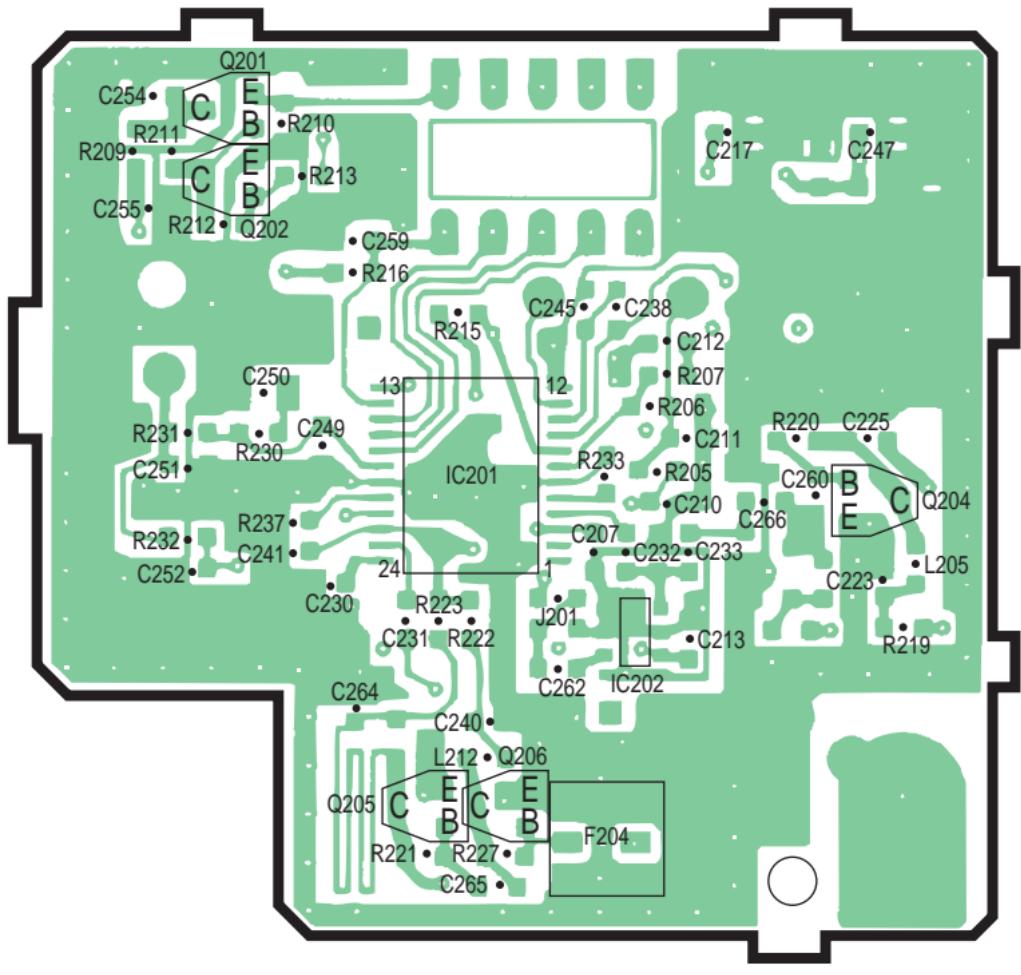
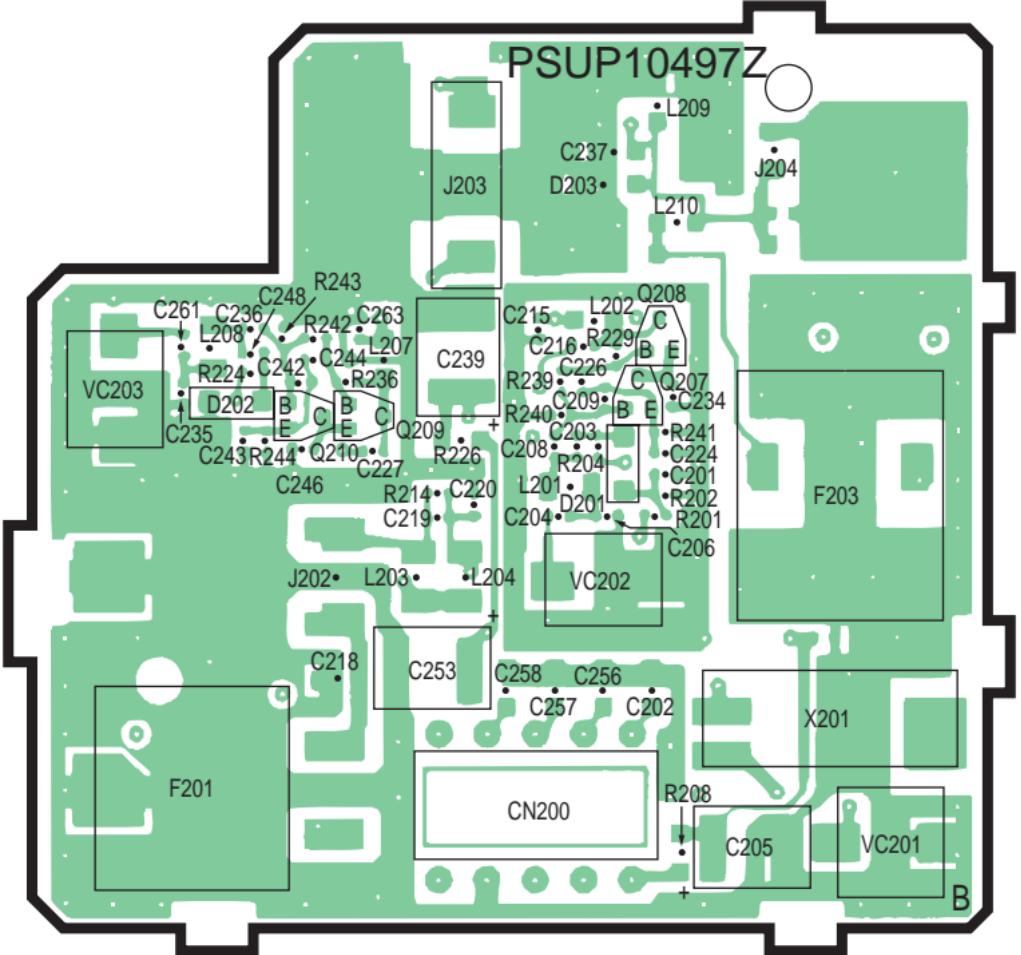
(Component View)

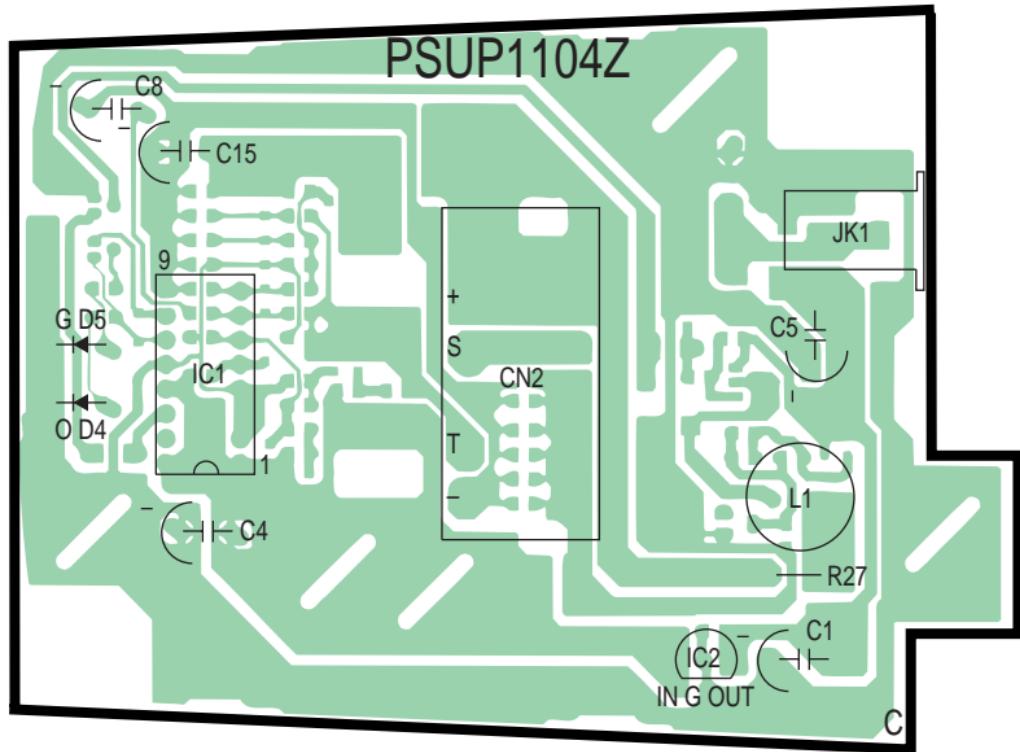
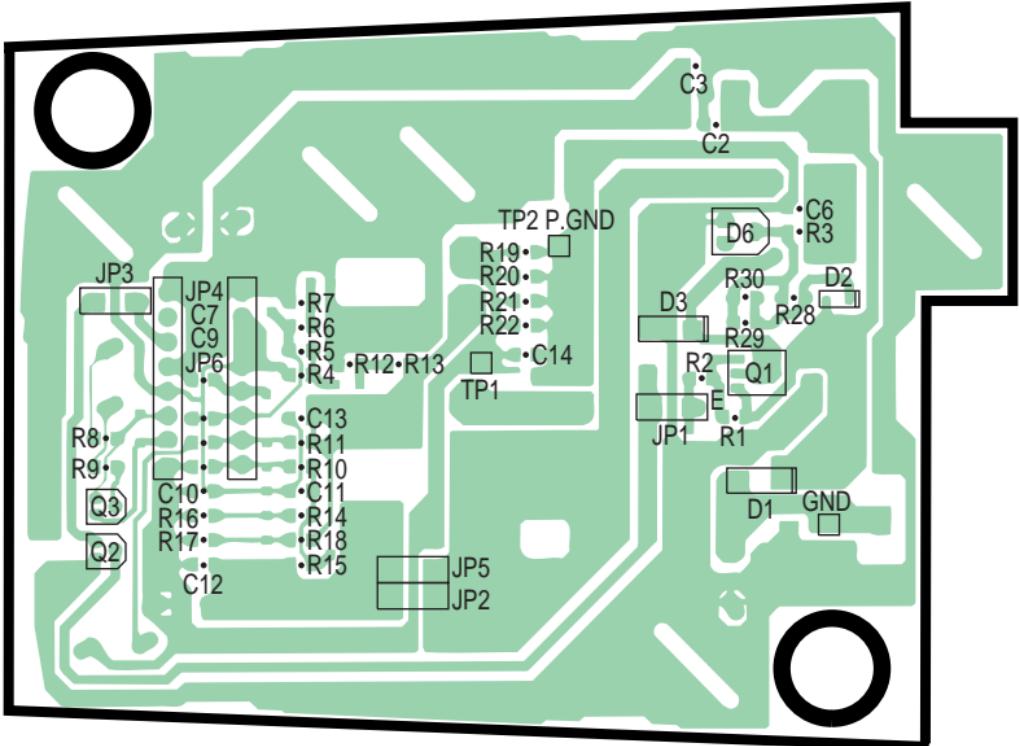


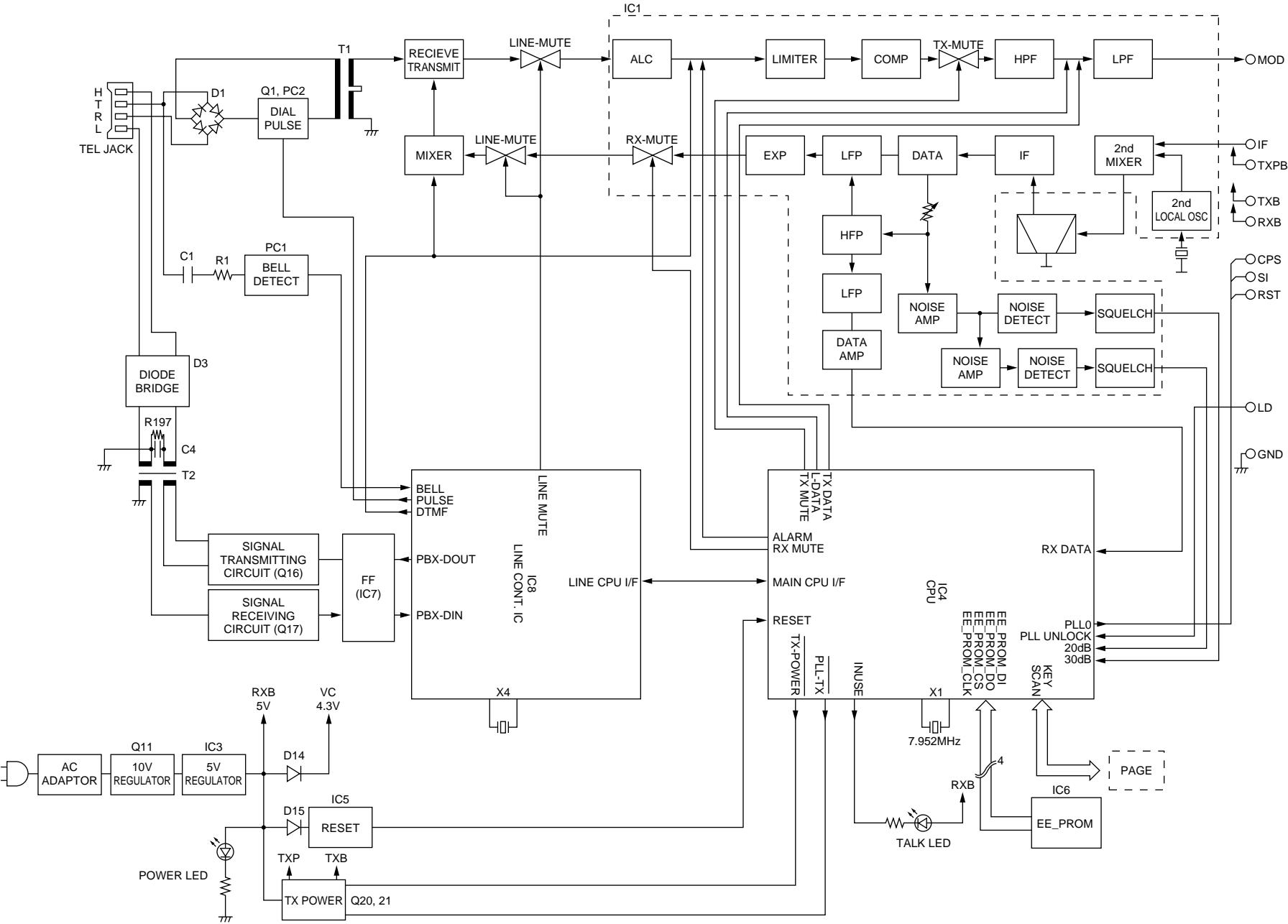
(Bottom View)

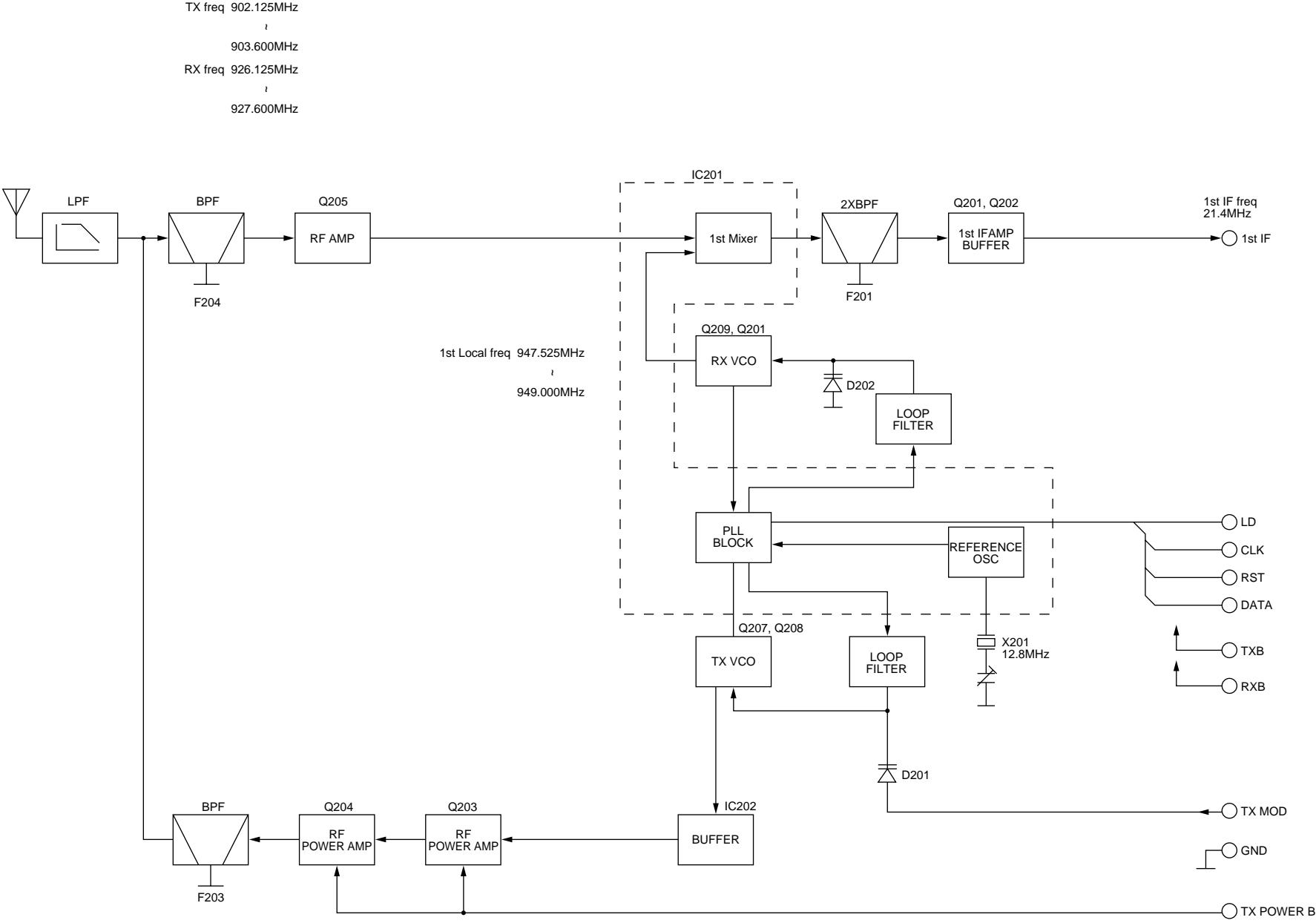


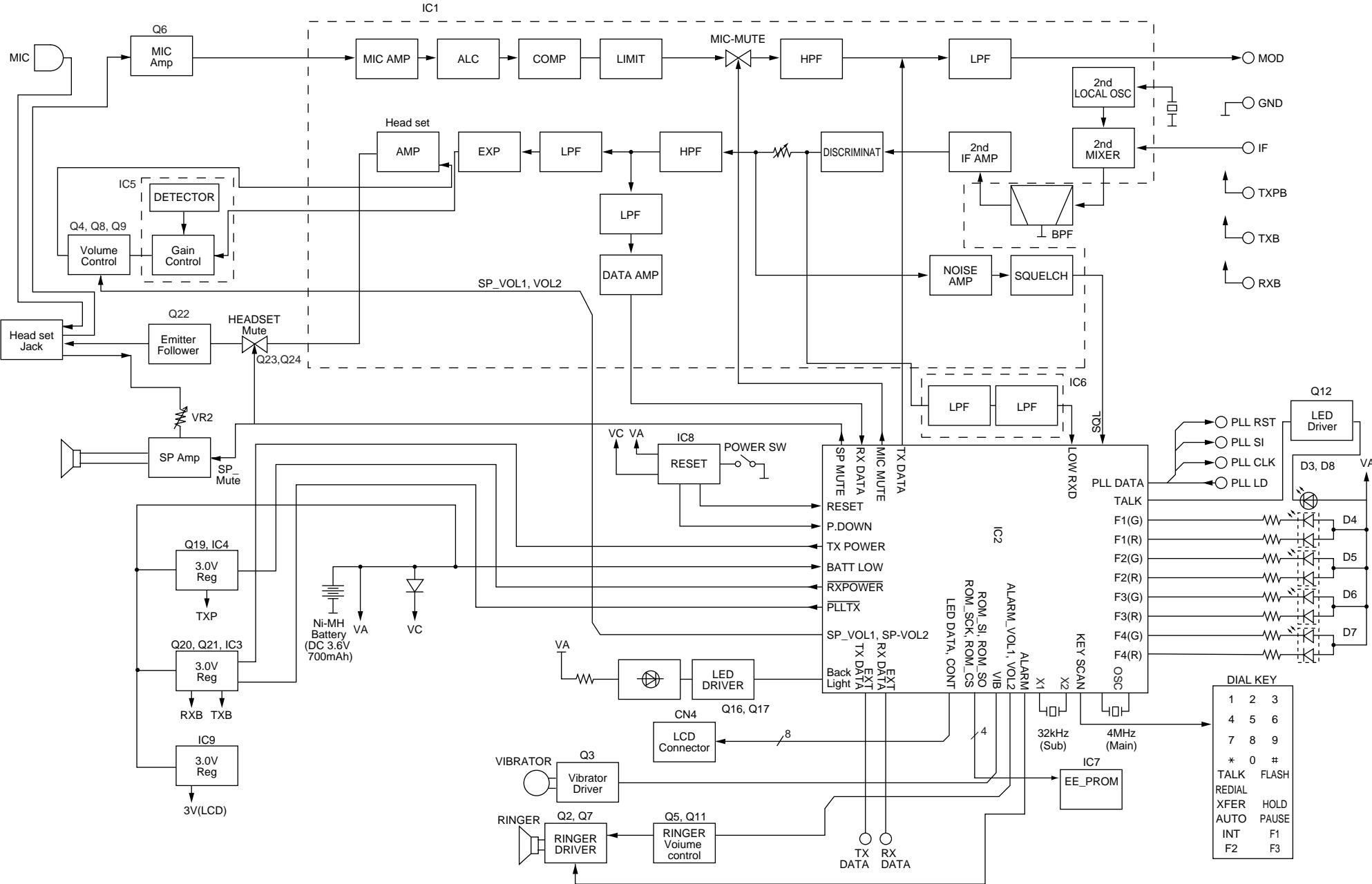


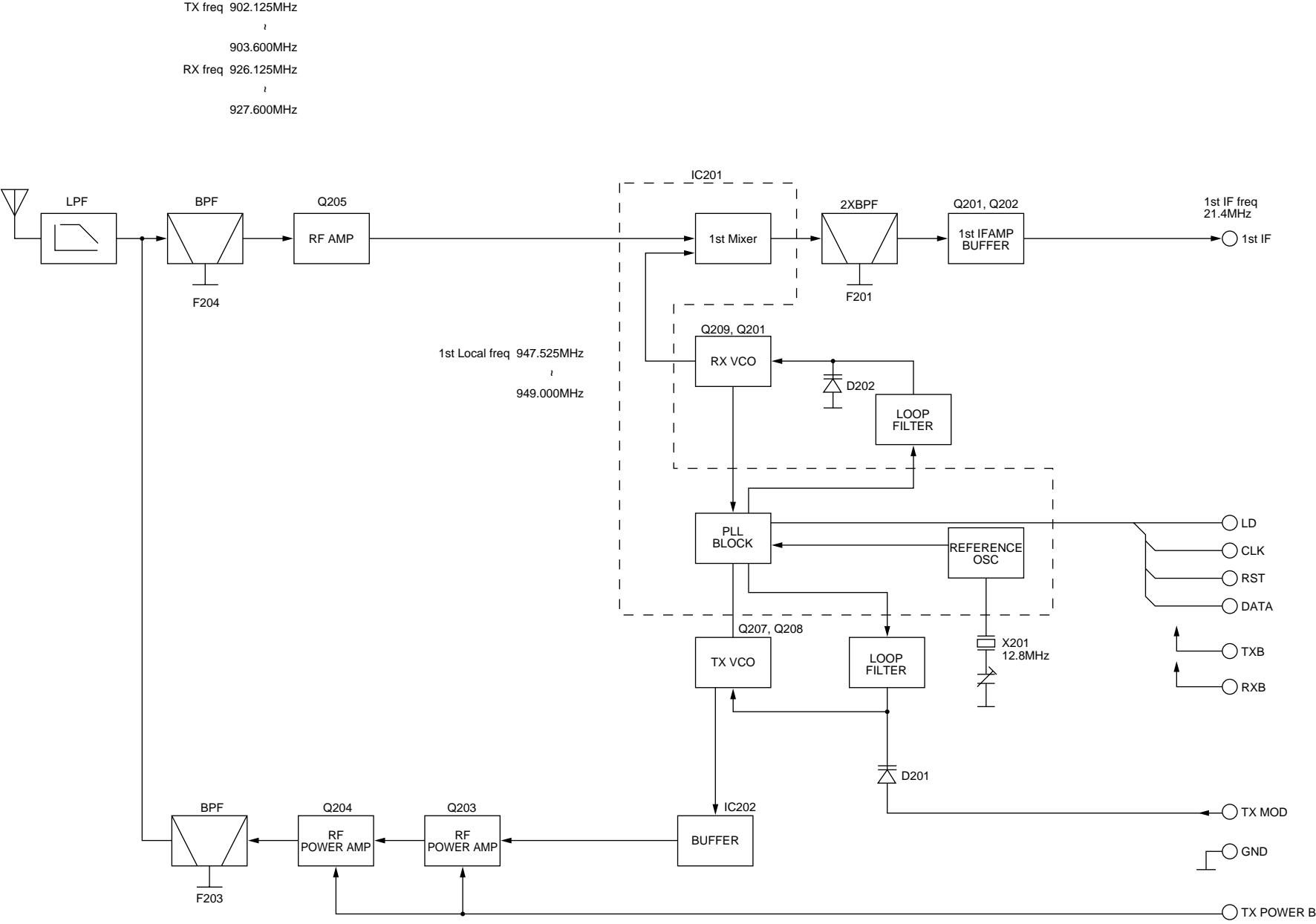


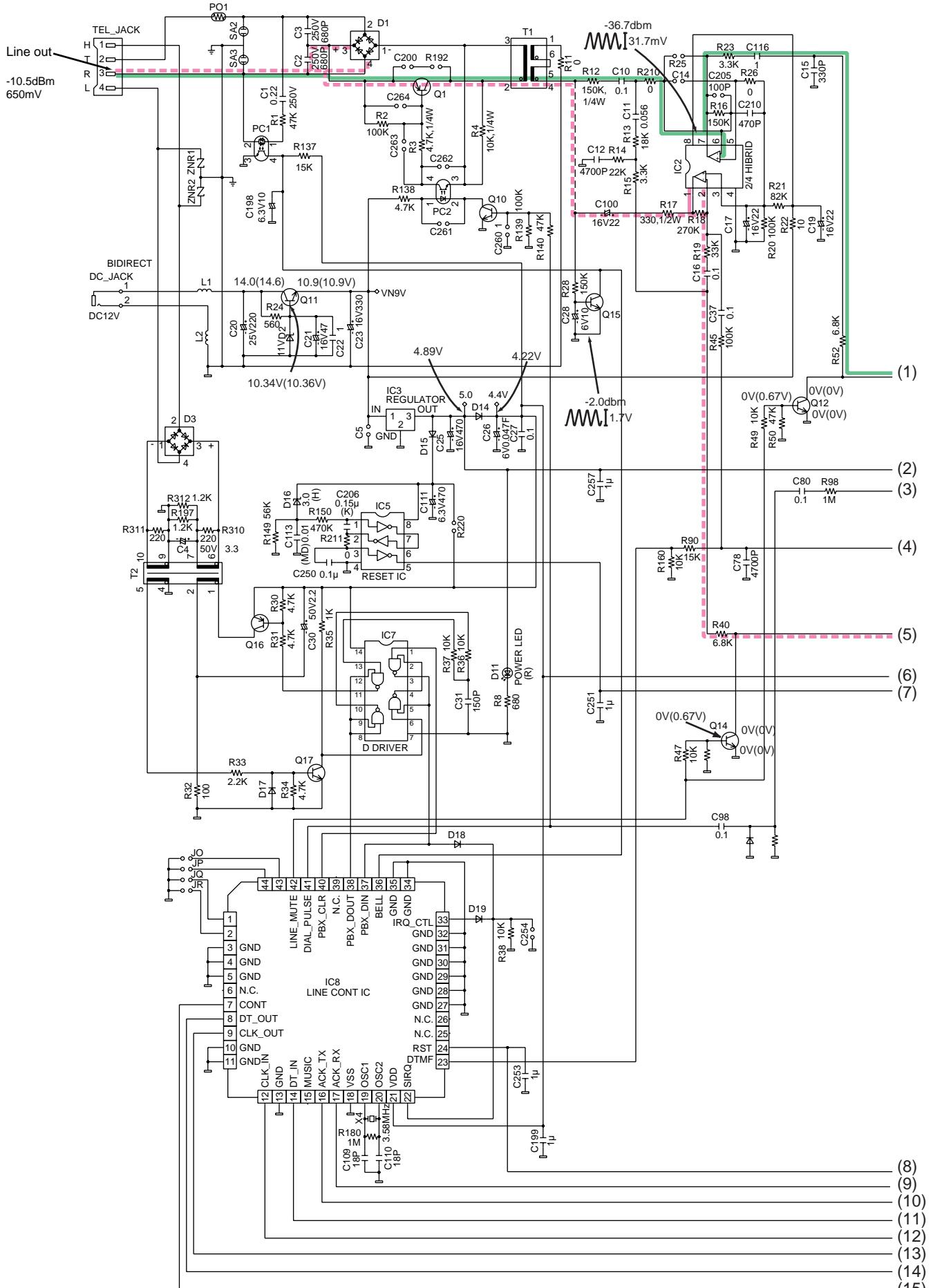












1. DC voltage measurements are taken with an electronic voltmeter from the negative voltege line.  
Mode : Talk (Standby)

2. This schematic diagram may be modified at any time with development of new technology.

3. Line input  
-30dBm/1kHz

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IF input  
21.4MHz, 60dBm $\mu$ V  
3kHzdlvi, 1kHz Audio

